

Instructions

- This presentation gives you a systematic explanation of various topics of the chapter 'The world population: Distribution, density and growth'.
- You have to first read the chapter from NCERT and then refer to the presentation.
- Skill based questions are to be attempted with reference to the related graphs, maps and tables.
- A short assignment along with the map work from the chapter is given at the end of the presentation.

The World Population Distribution, Density and Growth



Patterns of population distribution in the World

- George B. Cressey remarked “Asia has many places where people are few and few places where people are very many.” Same is true about the pattern of population distribution of the world.
 - About 90% of the World population lives in about 10% of its land area.
 - 10 most populous countries of the world contribute about 60% of the world’s population.
 - Of these 10 countries 6 are located in Asia.

Question 2.1: Identify 6 Asian countries.

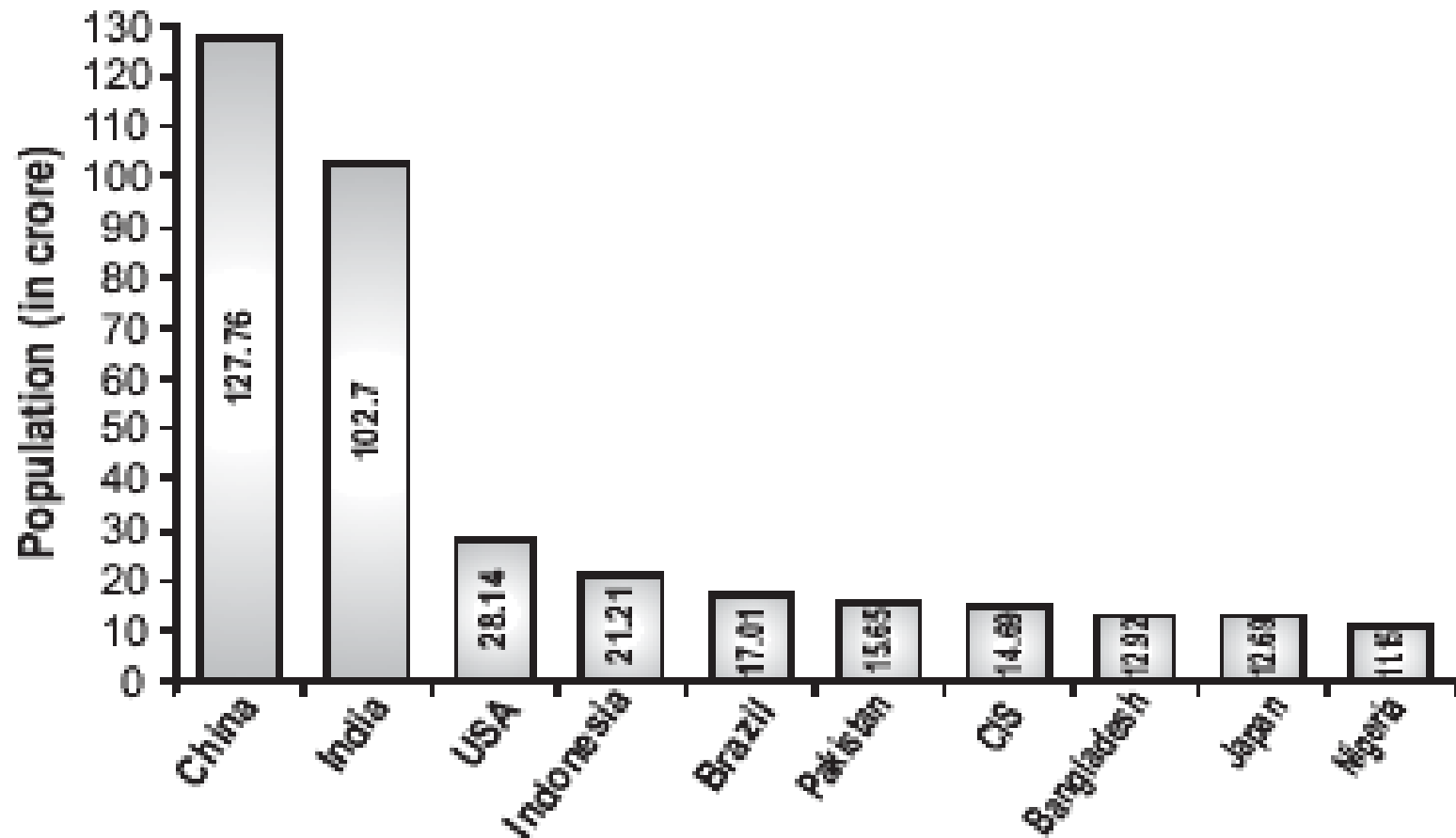
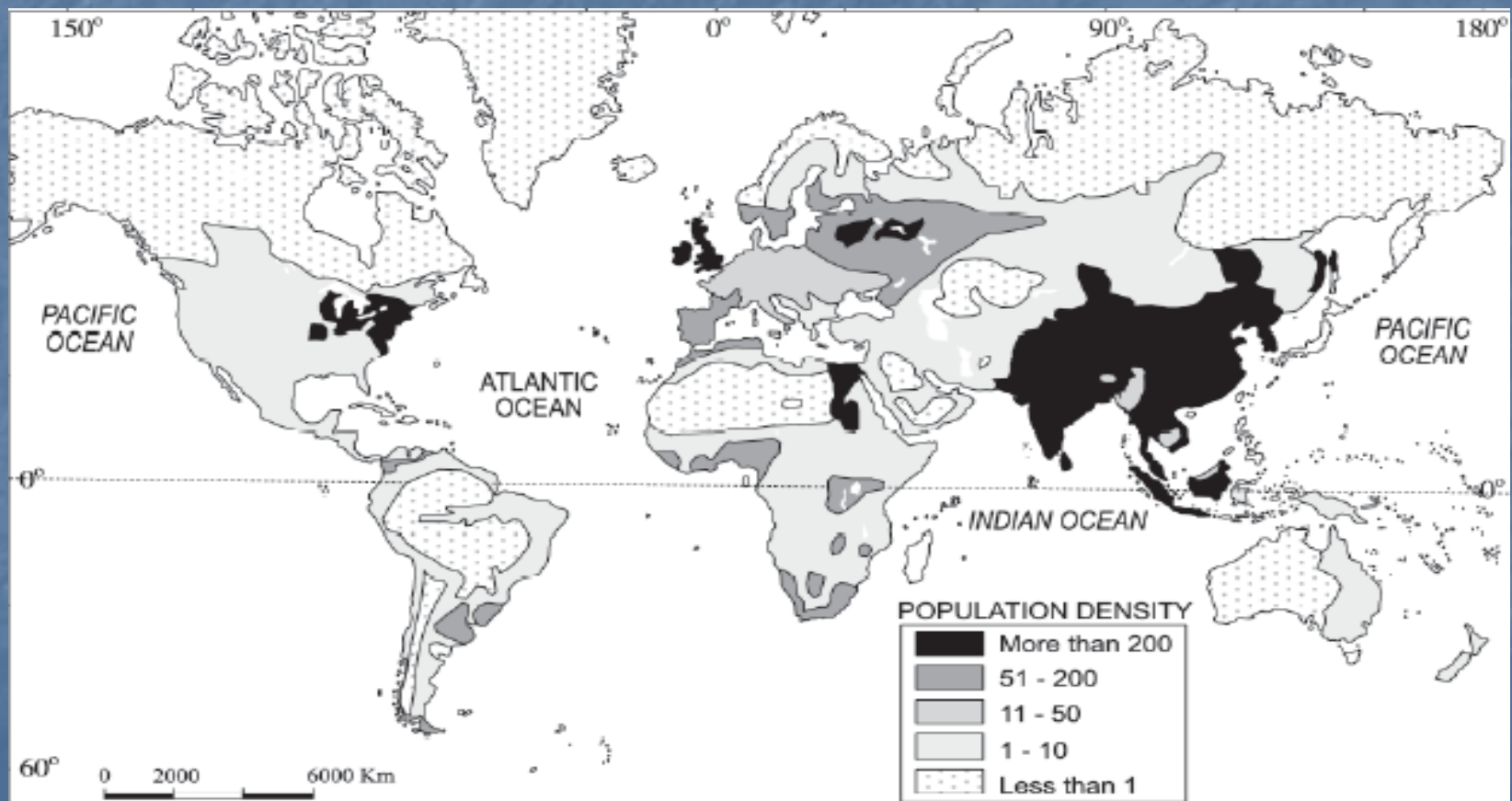


Fig. 2.1: Most Populous Countries

- The ratio between the number of people to the size of land is density of population.
- Question 2.2 :Identify high and low density areas of the world and give reasons for variation in their density of population.



Factors influencing population distribution

■ Geographical factors

1. Availability of water
2. Landforms
3. Climate
4. Soils

■ Economic factors

1. Minerals
2. Urbanisation
3. Industrialisation

■ Social and cultural factors

Population Growth

- Population growth refers to the change in the number of inhabitants of a territory during a specific period of time.
 - It can be positive or negative.
 - It can be expressed in absolute numbers or in percentage
 - It is an important indicator of economic development, social upliftment and historical and cultural background of the people.

Basic concepts of population geography

- **Growth of population:** change of population in a particular area between two points of time
- **Growth rate of population:** Change of population expressed in percentage
- **Natural growth of population:** any increase or decrease in population of an area expressed as the difference between the birth and Death rate
- Natural growth of population = Births – Deaths
- **Actual growth of population** = births – Deaths + in migration – out migration

- **Positive Growth of population:**
When birth rate is more than death rate or when people from other countries migrate permanently to a region between two points of time.
- **Negative Growth of population:**
When birth rate falls below death rate or when people migrate to other regions between two points of time.

- **The crude birth rate (CBR)** is expressed as number of live births in a year per thousand of women. It is calculated as:
 - **CBR** = $B_i/P*1000$
 - Here, CBR = Crude Birth Rate; B_i = live births during the year; P =Mid year population of the area.
- **CDR** is expressed in terms of number of deaths in a particular year per thousand of population in a particular region. CDR is calculated as:
 - $CDR = D/P* 1000$
 - Here, CDR=Crude Death Rate; D = Number of deaths; P =Estimated mid-year population of that year.

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**. The place of origin shows a decrease in population while the population increases in the place of destination. Migration may be interpreted as a spontaneous effort to achieve a better balance between population and resources.

Type of migration

- Migration may be permanent, temporary or seasonal. Various **streams** of migration are:
 - rural to rural areas,
 - rural to urban areas,
 - urban to urban areas and
 - urban to rural areas.
- Do you realise that the same person is both an immigrant and an emigrant?
 - **Immigration:** Migrants who move into a new place are called Immigrants.
 - **Emigration:** Migrants who move out of a place are called Emigrants.

Factors affecting migration

- The **Push factors** make the place of origin seem less attractive for reasons like
 1. Unemployment,
 2. Poor living conditions,
 3. Political turmoil,
 4. Unpleasant climate,
 5. Natural disasters,
 6. Epidemics and
 7. Socio-economic backwardness
- The **Pull factors** make the place of destination seem more attractive than the place of origin for reasons like
 1. Better job opportunities and living conditions,
 2. Peace and stability,
 3. Security of life and property and
 4. Pleasant climate.

Observe the news items and think of some reasons why certain countries become attractive destinations for migrants.

Migration to cities are traditionally age and sex selective i.e. more men of working age groups move to cities. Can you think of some reason why 22 per cent of migrants to Mumbai are kids?

22% of migrants to Mumbai are kids

Bulk Of Influx From Villages; Main Pull Factors To City Are Employment, Marriage and Family Reunification



One immigrant family in UK per min

Matthew Wickley

Immigrants were living in Britain at the rate of one a minute, a report reveals. The number of UK citizens migrating to live abroad is equal to one every five minutes. The figures emerged just a week before Somalia was admitted to the European Union and the 100th birthday of the country. It is the first time more people than 60 expatriates are expected to leave the country in a single day. Immigration is expected to follow a similar pattern in the future, says the report.

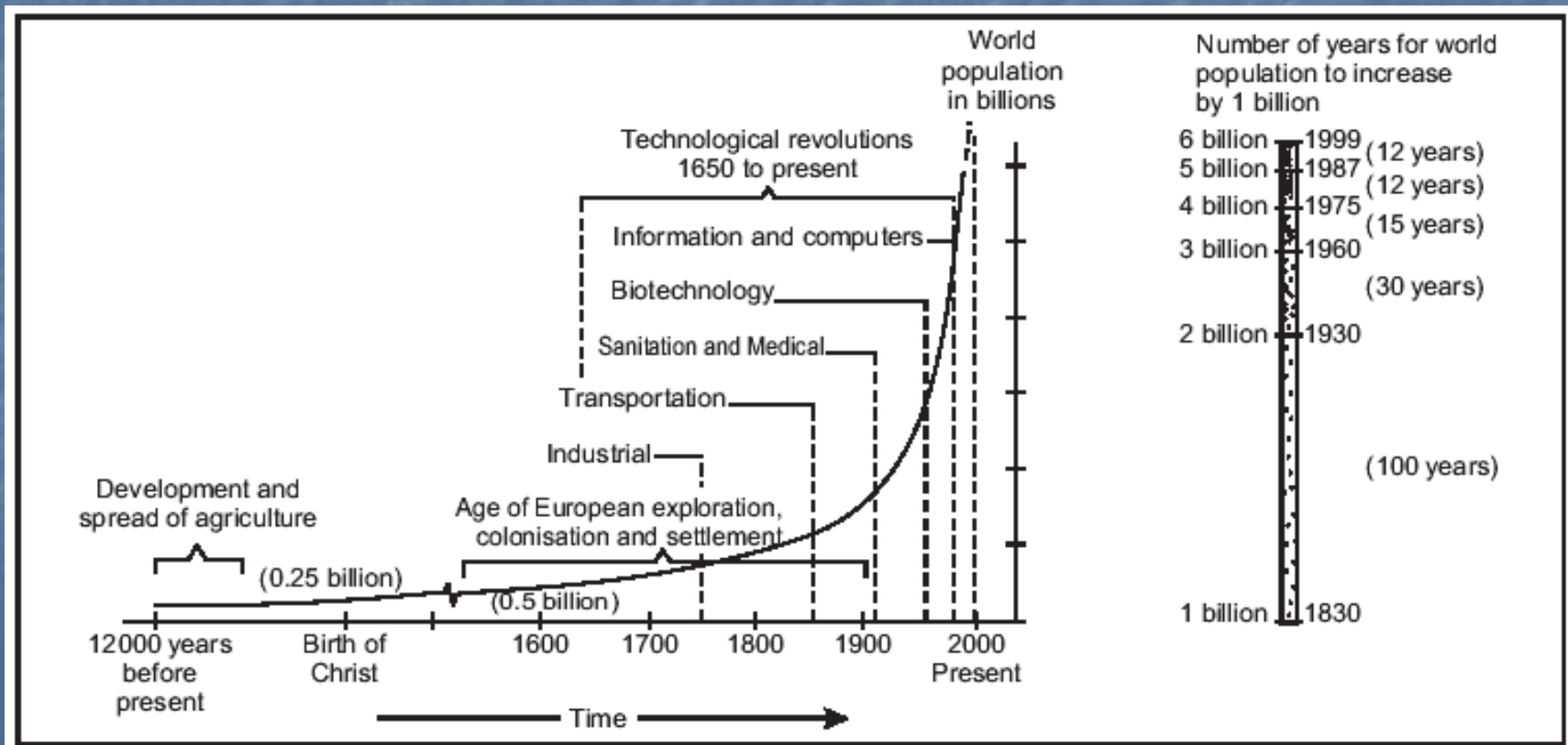
The figures come in an analysis of official Government migration statistics for 2001 by the Migration Watch think tank, which also suggests that more than two-thirds of them are from the Indian subcontinent. While the main pull factor remains employment, marriage and family reunification, the report says that the number of UK citizens migrating to live abroad is equal to one every five minutes. The figures emerged just a week before Somalia was admitted to the European Union and the 100th birthday of the country. It is the first time more people than 60 expatriates are expected to leave the country in a single day. Immigration is expected to follow a similar pattern in the future, says the report.

Some 65,000 eastern Europeans were officially classified as immigrants last year, but Migration Watch suggests 1,500 foreigners arrived each minute they are a under-focus on those areas. However, Migration Watch suggests that the real figure was 2,500, with 1,000

Resource, Technology and Population Growth

Q2.3. Explain the factors responsible for sudden increase in world population during 20th century.

Q.2.4 Giving three suitable examples explain the impact of resource and technology on world population growth.



TRENDS IN POPULATION GROWTH

- The population on the earth is more than six billion. It has grown to this size over centuries. In the early periods population of the world grew very slowly. It is only during the last few hundred years that population has increased at an alarming rate.
- After the evolution and **introduction of agriculture** about 8,000 to 12,000 years ago, the size of population was small – roughly 8 million.
- In the first century A.D. it was below 300 million.
- The **expanding world trade** during the sixteenth and seventeenth century, set the stage for rapid population growth.
- Around 1750, at the dawn of the **Industrial Revolution**, the world population was 550 million.
- World population exploded in the eighteenth century after the Industrial Revolution.
- **Technological advancement** achieved so far helped in the reduction of birth rate and provided a stage for accelerated population growth.

Doubling time of world population

Table 2.1: Doubling Time of World Population

<i>Period</i>	<i>Population</i>	<i>Time in which Population Doubles</i>
10,000 B.C.	5 million	
1650 A.D.	500 million	1,500 years
1850 A.D.	1,000 million	200 years
1930 A.D.	2,000 million	80 years
1975 A.D.	4,000 million	45 years
2012 A.D.	8,000 million projected figure	37 years

Q2.5. What is the trend of doubling time of population since 10,000 BC? What are the reasons behind such a trend?

How 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.

DO YOU KNOW

Human population increased more than ten times in the past 500 hundred years.

In the twentieth century itself the population has increased four times.

Nearly 80 million people are added each year.

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.
- Doubling time of world population is reducing fast. There is a great variation among regions in doubling their population.
- **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?

Population growth rates

Table 2.2: Population Growth Rates (%) 1995-2000

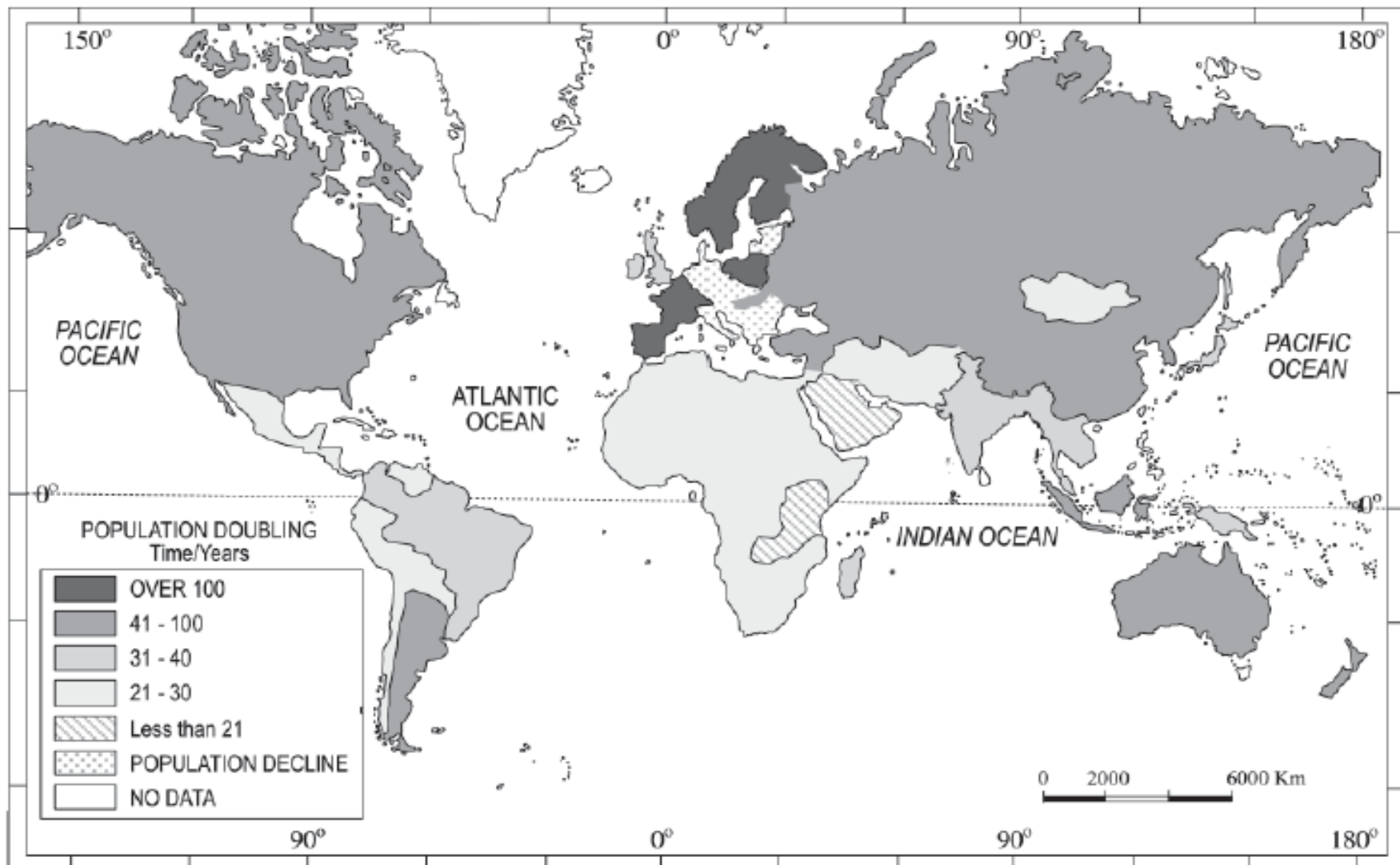
<i>High</i>		<i>Low</i>	
Liberia	8.2	Latvia	-1.5
Somalia	4.2	Estonia	-1.2
Yemen	3.7	Russia, Ukraine	-0.6
Saudi Arabia	3.4	Albania, Bulgaria	
Oman	3.3	Croatia	
		Slovenia, Czech Republic	
		Germany, Portugal	-0.1
		Spain, Italy	
		Denmark	0

Q. Refer to the table 2.6 and answer the questions that follow:

- a. Which country has the highest growth of population?
- b. Name the countries that have registered negative growth of population.
- c. Which continents do the countries with high population growth lie in?
- d. Which continents do the countries with low or negative population growth lie in?
- e. What could be the possible reasons for the varying population growth rates in these countries?

SPATIAL PATTERN OF POPULATION CHANGE

- Population growth in different parts of the world can be compared.
- The growth of population is low in developed countries as compared to developing countries.
- 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:
 1. **When a small annual rate is applied to a very large population, it will lead to a large population change.**
 2. **Even if the growth rate continues to decline, the total population grows each year. The infant mortality rate may have increased as has the death rate during childbirth.**



Question 2.7: Refer to the map showing the doubling time of population and answer the questions that follow:

- a. Name the regions with population doubling time of over 100 yrs. Give reasons.
- b. Name the regions with population doubling time of less than 21 yrs. Why is it so?
- c. Name the countries that show a decline in their population in coming years. What changes take place in the components of population to bring in such a decline.

Population growth

Table 2.3: Growth of Population 2004-05 over 1990-95

Region	Growth Rate	
	1990-95	2004-05 (Estimated)
World	1.6	1.4
Africa	2.4	2.6
Europe	0.2	0.0
North & Central America	1.4	1.1
South America	1.7	1.4
Asia	1.6	1.4
Oceania (Australia, New Zealand and Fiji)	1.5	1.3

IMPACT OF POPULATION CHANGE

- A small increase in population is desirable in a growing economy. However, population growth beyond a certain level leads to problems. Of these the depletion of resources is the most serious.
- 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.

The Doubling Story... It will take 36 years

The annual population growth rate in India is 1.9 per cent. At this rate India's population of over 1 billion will double in 36 years. Some developed countries will take 318 years to double their population whereas some countries still do not show symptoms of doubling their population.

DEMOGRAPHIC TRANSITION

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

Rural,
Agrarian

Demographic
Transition

Urban,
Industrial

The three-staged model of Demographic Transition Theory:

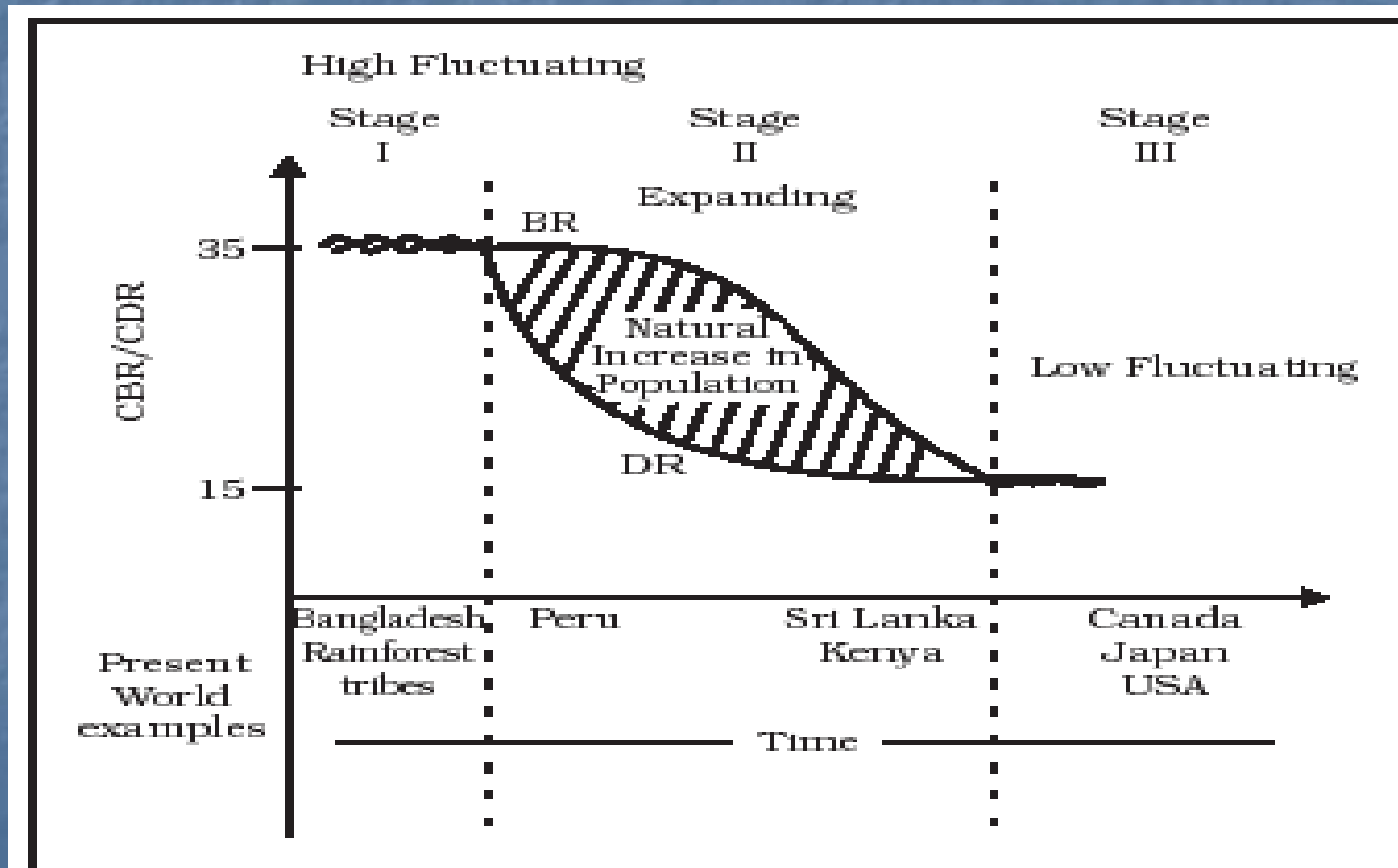


Fig. 2.5: Demographic Transition Theory

- 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.

- Fertility remains high in the beginning of **second stage** but it declines with time. This is accompanied by
 - reduced mortality rate.
 - Improvements in sanitation and health conditions lead to decline in mortality.
 - Because of this gap the net addition to population is high.
- In the **last stage**, both fertility and mortality decline considerably.
 - The population is either stable or grows slowly.
 - The population becomes urbanised, literate and has high technical know how and
 - deliberately controls the family size.
 - This shows that human beings are extremely flexible and are able to adjust their fertility.
 - In the present day, different countries are at different stages of demographic transition.

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, the world will have to control the rapid population increase

Assignment

- Define the following terms:
 - Distribution of population
 - Density of population
 - Growth of population
 - Growth rate of population
 - Positive growth of population
 - Negative growth of population
 - Crude death rate
 - Crude death rate
 - Migration
 - Immigration
 - Emigration
 - Doubling time of population

- Q. "Asia has many places where people are few and few places where people are very many." Substantiate the statement with three suitable facts.
- Q. Giving suitable examples explain the Geographical and the economic factors that influence the distribution of population of the world.
- Q 'Population growth is an indicator of economic development and social upliftment of the people.' Substantiate the statement giving three suitable examples.
- Q. Enlist the four streams of migration.
- Q. 'The Push factors make the place of origin seem less attractive and pull factors make the place of destination more attractive.' Justify the statement giving five suitable examples.
- Q. 'Although the annual rate of population change (1.4 per cent) seems to be low it is actually not so.' Explain the statement.
- Q. Explain the impact of population change on resource base of a region.
- Q. Describe all the three stages of demographic transition theory.

Map work

- Locate the following on the political map of the world.
 - Largest and smallest Country of each continent in area.
 - Countries having smallest and largest population of each continent
 - Countries having lowest and highest density of population of each continent.
 - Countries having lowest and highest density of population of each continent.