

## Chapter - 4

### World : Population Structure

All human activities are related to natural resources and population. The study of population structure is very important for planning of regional development of any region. Generally age-group, male-female ratio, occupation, rural and urban population, literacy etc. aspects are studied under population structure. On world level, regional differences are found in all aspects of population structure. The main components in population structure, composition or demographic structure are (a) age structure, (b) sex ratio, (c) population composition, (d) literacy and (e) occupational structure.

#### Age Structure

Age structure is studied according to different age groups. Normally, the population of a country is classified into the three different age groups which are 0-14, 15-64 and 65 years and above. The population over 65 years of age is called aged population. To calculate the working population of a country, it is essential to study its age structure of population. We can estimate increase or decrease in the working population by this study. Except some western countries, the age related data of most of the countries is not reliable. According to global data of population structure (2004), 6.8 percent population in the world is of elderlies. The senior citizen population percentage is the highest in Europe at 14.6 percent, followed by North America at 12.5

percent, Asia at 5.8 percent and Africa at 3.2 percent. On the national level, the highest percentage of senior citizen are in Japan (18.27%) followed by Germany 17.17%, France (16.21%) and Britain (15.9%). In most of the Africa nations, this percentage is between 2 to 3 only. Out of these Ethiopia and Somalia are the prominent ones.

**Table 4.1 : Age Structure in major countries of the world**

Countries	Age composition (2004)		
	0 & 14	15 & 64	65+
<b>Developed Countries</b>	<b>18-3</b>	<b>67-1</b>	<b>14-6</b>
U.S.A.	21-6	66-2	12-2
Australia	20-1	67-4	12-5
France	18-6	65-2	16-2
Britain	17-7	64-4	15-9
Germany	15-2	67-7	17-1
Japan	14-3	15-2	18-2
<b>Developing Countries</b>	<b>32-2</b>	<b>62-6</b>	<b>5-2</b>
Pakistan	41-05	54-8	3-7
Sudan	39-7	56-8	3-5
Bangladesh	38-7	58-5	3-2
India	33-3	61-6	5-1
South Africa	33-2	65-9	3-9
Indonesia	29-9	65-0	5-2
Sri Lanka	25-0	68-1	6-9
China	23-7	69-2	7-1

Source : Human Development Report, 2004

About 35.2 % of the world population is in the youth category. Out of these highest in Africa 44.5 %, Asia (33.6 %), While the percentage of young population is less in North America 22.5 %, South America 41.5 % and Europe 21.6 %. At the National level, this percentage is less in Japan (14.3 %), Germany (15.2 %) Britain 17.7 %, U.S.A. 21.6 %, while it is higher in developing countries.

**Table 4.2 : Age group population distribution (Percentage) in developed and developing Countries of the world**

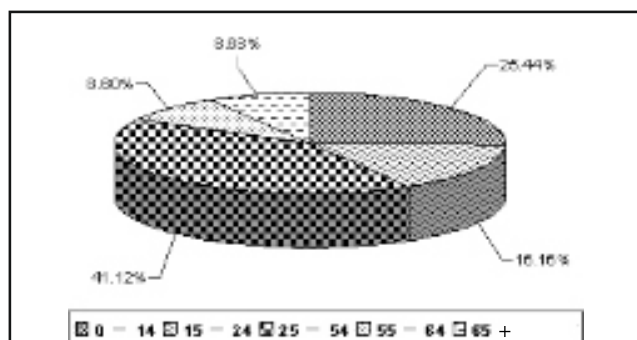
Country	0-14	15-64	65+
Developing	40.8	55.4	3.8
Developed	26.7	63.7	9.6

*Source- Human development Report 2004*

- Generally young population is more in developing countries, while the population of adult and elderly is more in developed countries.
- Unbalanced age composition bears an adverse effect on the economy of a country.
- In those countries where the population is growing at a rapid pace, the number of children is high.

The latest data on age structure of world population are shown in diagram 4.1.

**Diagram 4.1 : Age structure of World (2015)**



The three age groups are found at the globe level indicate the following characteristics.

- (1) The youth age group comprises 35 percent of the total world population which is related to

0-14 years age class. Regional variations are observed in this figure on the world level. 18.3% population in developed countries and 32.2 % population in developing countries are included in this category. In countries, where the birth rate is high, the percentage of population in this age groups are higher.

- (2) The adult age-group population is kept in the second category. This population is more than the other categories. The population of this category is reproductive, most productive economically and most dynamic demographically. The development level of any country is related to the population in this category.
- (3) Elderly age-group population is found higher in those countries, where demographic development sequence has been completed. Most developed countries are related to this age group.

### Sex Ratio

The sex ratio in a population is an indicator of the balance between males and females. In order to determine the sex ratio, the number of females per thousand males is calculated. In some countries, this is calculated using the following formula-

$$\frac{\text{Number of males}}{\text{Number of Females}} \times 1000$$

Or number of males per thousand females.

In India, the sex ratio is determined using the following formula.

$$\frac{\text{Number of Females}}{\text{Number of males}} \times 1000$$

Or number of females per thousand males.

Generally, in almost all countries of the world male births exceed female births. Gender discrimination, female foeticide, female infanticide, domestic violence towards women, female death

rate, maternal mortality rate are the major causes of adverse sex ratio in the world.

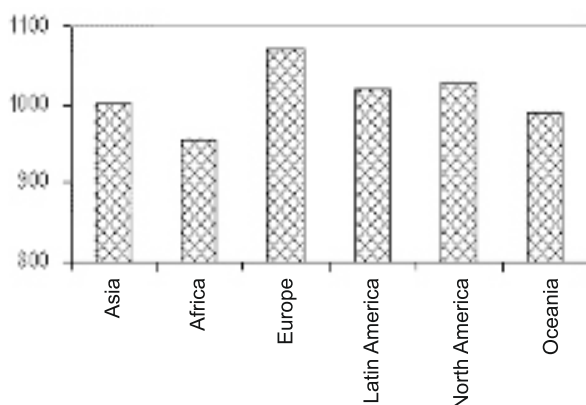
Tables 4.3 and graph 4.2 show the sex ratio according to continents.

**Table 4.3 : Global Sex Ratio 2004**

<b>World &amp; Continents</b>	<b>Sex Ratio No. of female/1000 males</b>
World	985
Asia	1002
Africa	957
Europe	1072
Latin America	1018
North America	1027
Oceania	990

*Source : Population division, United Nations Reference, 2001*

**Diagram 4.2 : World Sex Ratio 2004**



Differences are also found in rural and urban sex ratio in different countries of the world. The rural and urban sex ratio in U.S.A. and Western Europe is quite different from that in Asian countries. In western countries, males outnumber females in rural areas whereas females outnumber males in urban areas. Migration of females for employment is the main reason for this. In 1980, the average sex ratio of the world was 993 i.e. per 1000 males, there was a deficiency of 7 females. Data for the year 2004 indicate that this sex ratio came down to 985 i.e. a shortage of 15 females per 1000 males. There are so many countries in the world where number of females exceeds the number of males and many other countries where number of males

exceeds females. The world can be divided into four parts on the basis of variation in sex ratio.

#### **(A) Countries with very high sex ratio :**

Countries having a sex ratio of more than 1050 are included in this category. These include western European countries, United States of America, Canada and Southern region of South America, where the number of women is more in comparison to men.

#### **(B) Countries with high sex ratio :**

Countries having a sex ratio between 1050 and 1000 are included in this category. This includes countries like Ukraine, Belarus, Poland, Mongolia, Kazakhstan, Thailand, Cambodia, Myanmar and South African countries.

#### **(C) Countries with male dominance :**

In this class, the sex ratio is found between 1000 to 950. These include countries like Australia, New Zealand, China, Korea, Mexico, Brazil, Iran and Cuba.

#### **(D) Countries with excessive male dominance :**

Many countries in the world have sex ratio of less than 950. India is the major representative of this category. This declining sex ratio is a cause of worry for imbalance of population.

There is also the dominance of man in the global sex ratio but in Africa, North and South America and European countries proportion of women is higher than men.

In a developing country like India, the proportion of females is less than the males. The main reason for this is the country's traditional society. The main reason for this are lack of education, employment opportunities, safety and respectable place in society for women.

### **Population Composition**

In population composition, the ratio of the rural and urban population of a country is considered. Population living in villages are engaged in agriculture or natural activities is called

rural population; while the population living in cities are engaged in non-agriculture activities, like industries and other services is called urban population. The age-sex composition, occupational structure, population density and development level are different in rural and urban areas.

More than 50 % of total world population lives in cities. On the global level, urban population is undergoing an annual increase of 6 crores which is three times the increase in rural population. 38 % of population in Asia and Africa continents lives in urban areas, while in North America and West European countries 75-78 % population lives in cities.

Table 4.4 and graph 4.3 Show the world population composition :-

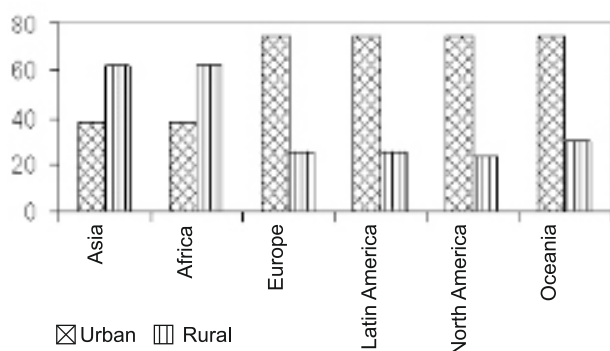
**Table 4.4 : World rural and urban population**

(in millions)

Continents	Total Population (in crores)	Urban Population		Rural Population	
		in crores	%	in crores	%
Asia	368-2	138-3	38-0	229-9	62-0
Africa	78-4	29-5	38-0	48-9	62-0
Europe	79-2	54-6	75-0	18-3	25-0
S. Africa	51-9	39-1	75-0	12-8	25-0
North America	31-0	23-9	77-0	7-1	23-0
Oceania	3-0	2-1	70-0	0-9	30-0

Source : Population division, United Nations Reference, 2004

**Diagram 4.3 : World Urban and Rural population (2004)**



Till the year 1800 only 25 % of world's

population lived in cities. This grew to 35 % in 1960, are 45 % in 1999 and more than 50 % in 2004. A significant feature of developing countries is the increase in the number of big towns. More than half of the world's population resides in towns. From 1960 to 2000 the urban population has increased from 800 million to 2900 million. This growth is more than three fold. During this period, the total population of the world has marked an increase twice from three billion to six billion. According to a population projection, the urban population will increase to eight billion by 2030 AD.

Global population figures show that in 1975 38 % of the world population lived in cities which rose to 48 % in 2004. It is estimated that 61% of world's population will become urban by 2025 AD.

Very significant dissimilarities are observed in the distribution of rural and urban population across the world. According to the distribution of urban population the global distribution can be classified as follows-

**(A) High Urban population :** Those countries of the world are included in this category in which the percentage of urban population is more than 60%. A high percentage of urban population lives in countries like U.S.A., Canada, Mexico, Brazil, Australia, New Zealand, Japan, Singapore, Argentina and most countries of European continent.

**(B) Medium / Moderate Urban population :** Those countries of the world are included in this category where the percentage of urban population varies between 40 to 60 %. Medium urban population is found in countries like China, Indonesia, South Africa, Egypt, Venezuela, Cuba, Jamaica and Haiti.

**(C) Low Urban population :** This category includes countries having less than 40% urban population like India, Pakistan, Bangladesh, Nepal and most South East Asian and African countries.

## Literacy

The qualitative aspects of population are studied through literacy. It is the most reliable and actual index of the socio-economic development of a region. Excessive variation are found in the literacy rate at the world level. Literacy rate represents that percentage of the total population in which persons above the age of 7 years who can make understand each other in their daily life through reading and writing. In determination of human development index, literacy is taken as a credible indicator of socio economic, cultural and political development.

In fact, poverty alleviation, agricultural development and international relations literacy is an essential element. This is so, because literacy influences the reproduction, death rate, dynamism and occupation etc. aspects of the population. Thus, education is considered to be the main source of availing suitable opportunities in a society. Therefore is order to understand the holistic socio-economic character of a region, the importance of literacy is the greatest.

The major factors that affect the literacy rate are level of economic development, urbanization, standard of living, social status of women, various facilities and government policies. The level of economic development is possible only through literacy. Table 4.5 and 4.6 shows the data for global literacy.

**Table 4.5 : Global Literacy - 2008**

Region	15 year or more than population in %	Population of 15 to 24 year in %
Developing Countries	76-6	85-2
Undeveloped Countries	54-2	64-2
Arab Countries	64-1	81-3
East Asia	90-4	98-0
Latin America	89-6	95-9
South Asia	58-9	72-2
Sub Sahara Africa	61-3	73-7
Middle or East Europe	99-2	99-5

*Source : Human Development Report, 2008, Oxford Univ. Press*

**Table 4.6 : Global 100% Literacy Countries**

Name of Country	Litracy upto 15 or more age (2008)
Japan	100
Australia	100
Denmark	100
Finland	100
Sweden	100
Norway	100
<b>World</b>	<b>77</b>

*Source : Human Development Report, 2008, Oxford Univ. Press*

In countries where special attention is paid to literacy and education, there, the population registers prosperity and progress in various fields. Government of all countries of the world makes efforts towards this end. Prosperous and unbanised economies reflect higher literacy rate and higher education level. It is necessary for developing countries to pay special attention towards this.

## Occupational Structure of population

The employment of the working population in various occupation or activities is studied under the occupational structure. The population engaged in various occupational activities and earning their livelihood from these activities is called economically active population. The proportional distribution of this population, which is employed in a specific economic activity is called occupational structure of population.

According to the United Nations, there are many kinds of occupational categories like-agriculture, forestry, hunting, fisheries, animal husbandry, mining extractions, commercial transportation, communication, manufacturing, production/construction, electricity / gas, water and health services, commerce, warehousing and other unclassified occupations. This classification is done for international comparison but every country classified its population into various occupational categories in accordance to its needs.

The working population (men / women between 15-59 year age group) are employed in agriculture, forestry, fisheries, manufacturing,



construction, commercial transportation services, communication and other unclassified services. In countries having underdeveloped economies, a higher percentage of population is found to be more active in primary occupation. In developing or developed countries of the world or in developing economies, a higher proportion of population is found to be more active in secondary and tertiary occupations.

In highly developed and industrialized countries, 40-45 percent of the working population is active in tertiary occupations. In United States of America and west European countries, 60-70 percent population is associated with these occupations. The percent of population employed in quaternary occupations found to be comparatively lower, but their income is highest. The population associated with these give dynamism to the socio-economic scenario by their ideas, research etc.

### IMPORTANT POINTS

1. The population structure exhibits those characteristics of population, which can be measured.
2. The number of people in various age groups is called the age structure of the population.
3. The size of various age groups varies according to size of population and time.
4. Age-group, sex-ratio, literacy, rural-urban population ratio the occupational structure of population etc. are the important components of population structure.
5. The indicator of the balance between men and women is called sex ratio of the population.
6. Urban population is engaged non-agricultural or industrial and manufacturing activities.
7. The urban population of the world is undergoing an increase of 6 crores annually, which is three times of the increase in rural population.
8. Urban population increased from 80 crore to

290 crore between 1960 to 2000. This increase is more than three times.

9. Literacy is a qualitative feature of the population which is a factual and credible indicator of the socio-economic development of a region.
10. Only the young and adult population (15-59 years of age) is included in the working population.

### EXERCISE

#### Multiple Choice Type Questions

1. Population above which age is included in the elderly population group ?  
(a) 60 years      (b) 62 years  
(c) 68 years      (d) 65 years
2. Which country has the highest percentage of elderly population in the world ?  
(a) India      (b) Japan  
(c) China      (d) South Africa
3. Which age group has the highest percentage in the world ?  
(a) More than 65 years      (b) 0-14 years  
(c) 25 to 54 years      (d) all of these
4. The country having hundred percent literacy is-  
(a) Japan      (b) India  
(c) China      (d) U.S.A.
5. High urban population is found in which country?  
(a) Egypt      (b) Singapore  
(c) Bangladesh      (d) India

#### Very Short Answer Type Question

6. According to age-group, which group has the highest population ?
7. In population structure, with which age-group is the children group related?

8. Mention the importance of literacy.
9. With which occupational category is agriculture related?
10. Which continent has the highest urban population in the world?

#### **Short Answer Type Questions**

11. What is meant by population structure or composition?
12. What is sex ratio?
13. Why is rate of urbanization increasing rapidly in developing countries?
14. What is the importance of age structure?

#### **Essay Type Questions**

15. Describe the rural-urban composition of population?
16. Describe the characteristics of world population which are represented by sex ratio.

#### **Map / Skill Based Questions**

17. Show the data for global sex ratio by a pyramid diagram.