

Some occupations are found in both villages and towns such as fishing, lumbering or mining. Such villages can, however, be distinguished from towns by the smaller scale of their activities.

The size and functions of settlements are often related to their sites and situations, which themselves are also determined by their *functions*. Villages dominated by agricultural or farm workers will grow in fertile agricultural areas. Towns may grow for several reasons often closely related to factors of site and situation, e.g. mining towns are sited near mineral resources and fishing ports are sited by sheltered anchorages. Industrial town, on the other hand, may be situated at *nodal points* where all the raw materials for manufacturing goods can be obtained.

The major functions of towns are trades and commerce, transport and communication, mining, manufacturing, defence, administration, cultural and recreation activities. In many cases a town may have more than one major function and it is then said to be a diversified town.

### **Rural Settlements**

Rural settlements are most closely and directly related to land. They are dominated by primary activities such as agriculture, animal husbandry, fishing etc. Settlements size is relatively small. As discussed earlier, these settlements may be studied in terms of form, internal structure and functions.

#### **Form**

Distribution of rural settlements on a world map reveals two distinct patterns: clustered or compact and dispersed or scattered.

*Compact Settlements* : In these settlements, houses are built in close vicinity to each other. Initially it may begin as a small hamlet at the intersection of two footpaths or near a water body. As new households are added, the hamlet expands in size. Such settlements are commonly seen in river valleys and fertile plains. The houses are closely spaced and streets are narrow. Socially, the people are closely knit.

Most of the river plains of monsoon Asia present compact settlements. In the plains of India, China and Thailand, large nucleated village is the prevailing type. In the Irrawaddy delta, one can see the linear settlements along with nucleated small villages. The Kanto plain of Japan has the largest concentration of compact settlements. In southern Arabia, human settlements are concentrated close to the coast, where water and good soil are available.

In Europe, compact settlements are typical in the river valley plains of Volga and Danube. The Rhine hilltops are also dotted with compact settlements, leaving plain areas for farming.

*Scattered Settlements* : These are generally, found over hills, plateaus and highlands. They consist of one or two dwelling units knitted together in a common bond by a cultural feature such as a church, a mosque or a temple. In Africa, scattered settlements of this kind are common. In India such settlements are found in hilly terrain such as northern Karnataka, Himachal Pradesh, Sikkim and northern West Bengal. Isolated hamlets are found in mountainous regions of China.

#### **Structure**

The arrangement of the streets, houses and other functions in rural settlements is related to its form, environment and culture. Generally, three patterns are most common. They are: linear, circular and square, and cross shaped. Many other variations may be seen (Fig. 10.1) .

*Linear* : These settlements are very common and are found along either side of roads, rivers or canals. The flood plains of rivers in the hilly terrains are also occupied by linear settlements. In the low-lying areas of western Europe, villages are often positioned on dykes and levees forming linear patterns. In India, such patterns are found all along the major roads and rivers.

*Circular or Square* : These types of settlements develop in flat level lands, around a pond, tank, crater, hill top or a cattle corral.

For example, in West Bengal, settlement around a village tank is a common feature. In Africa and Europe, circular villages may be seen. At times because of physical barriers or other obstructions on one or two sides, settlements take a square form.

**Cross Shaped** : This type of settlement begins as a small hamlet at the intersection of roads. Gradually, it grows along the roads on all sides and appears as a cross or a star depending upon the number of roads joining at a junction.

**Functions**

Practically, all rural settlements are related to agriculture but within agriculture there is a specialisation. Some settlements

specialise in dairying, some in fishing, some in farming and some in agro-processing. Besides, some rural settlements are primarily engaged in production, but a few may develop specialised services in repairing agricultural implements and machineries, credit facilities, selling of fertilisers and handloom clothes. Some large villages have a few small shops which sell the goods against the payment of money as well as grains. All the villages in India have *panchayats* which perform administrative functions.

**Urban Settlements**

As discussed earlier, there are different bases of classifying settlements among rural

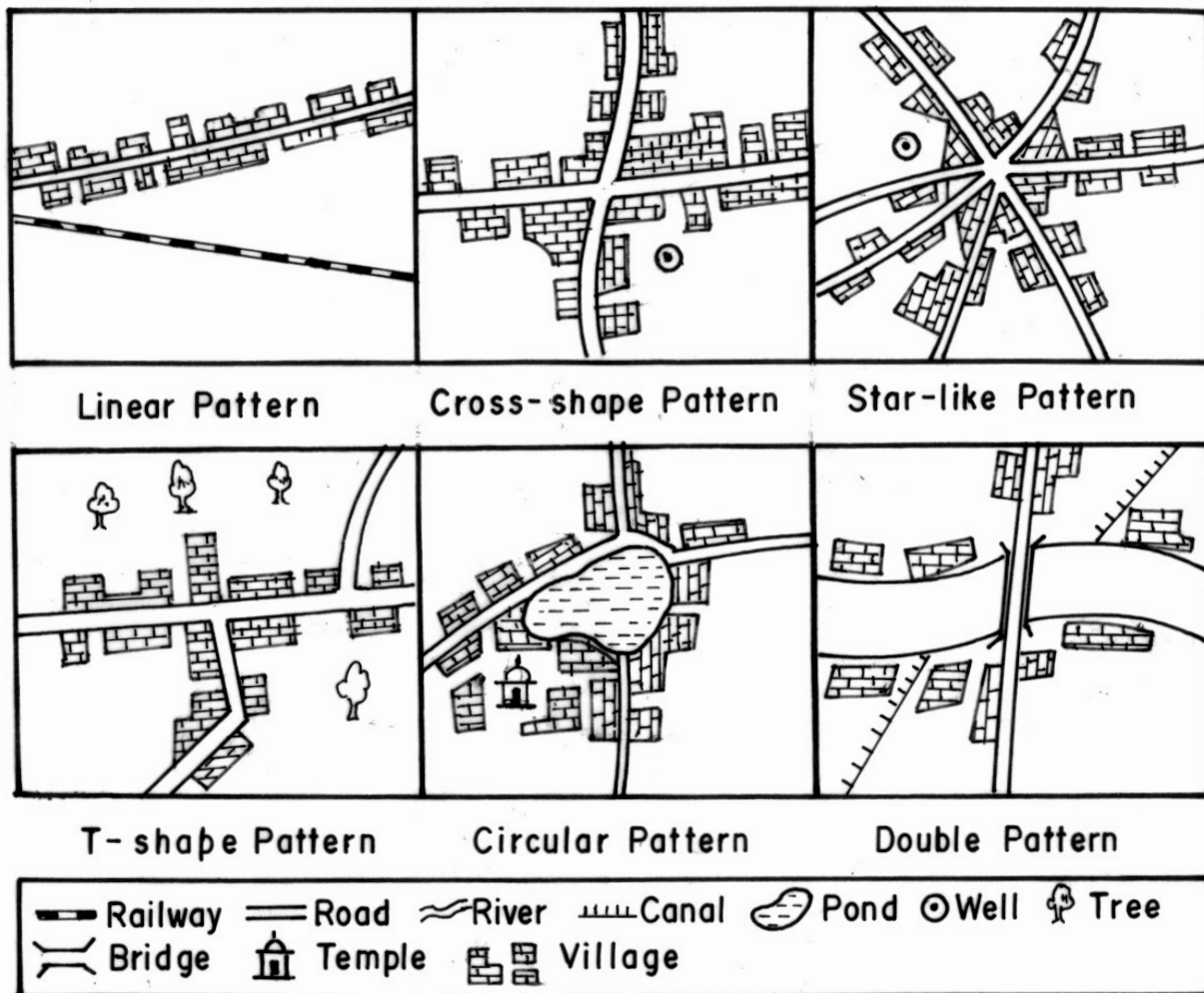


Fig. 10.1 Rural Settlement Types

and urban. Some of the common bases of classification are size of the population, occupational structure, and administration.

### **Population Size**

It is the most important criteria used by almost all countries of the world to designate a settlement as urban. There are, however, wide differences in the exact number that differentiates urban from rural. Countries with low density of population may chose a lower number as the cut off figure compared to a densely populated country. For example, in Denmark, Sweden and Finland, all places having more than 250 persons are called urban. In Iceland, the minimum size of population for a city is 300, whereas in Canada and Venezuela, it is 1,000. In Colombia the lower limit is 1,500, in Argentina and Portugal 2,000 persons, in USA and Thailand 2,500 persons, in India 5,000 persons and in Japan 30,000 persons. In India, besides the size of population, its density is also an additional condition, which is about 400 persons per sq. km.

### **Occupational Structure**

In addition to the size of population, some countries such as India take into account the major economic activities as a criterion for designating a settlement as urban. In Italy, a settlement is called an urban, if more than 50 per cent of the economically productive population are engaged in non-agricultural pursuits. In India, more than 75 per cent of the work force of the settlement should be engaged in non-agricultural activities, to be called urban.

### **Administrative Decision**

In some countries, the administrative set-up is a criterion for classifying a settlement as urban. For example, in India even a settlement with less than 5,000 population can become urban if it has a municipality, cantonment board or a notified area. In many Latin American countries, such as Brazil and Bolivia, any administrative centre is called an urban irrespective of its size.

### **Location and Form Criteria**

Depending upon its location, an urban settlement may be linear, square, star or crescent shaped. The architecture and style of buildings depict historical and cultural influences. By and large, the shape of a town is dependent on the site and situation.

The towns and cities of developed and developing countries reflect marked difference in planning and development. While most of the towns and cities in developed countries are well-planned and have regular shapes, the urban settlements of developing countries, except for a few, have grown haphazardly giving them irregular shapes. For example, Chandigarh is a well-planned city, while Patna has grown haphazardly.

### **Function**

Towns perform a number of functions. In some towns, one particular activity is predominant and the town is known for that function. For example, Oxford is known as an educational town, Varanasi as a religious centre, and Washington D.C. as an administrative town. Thus on the basis of functions, towns and cities are classified into the following groups:

*Administrative Towns* : Headquarters of the administrative departments of Central Governments, such as New Delhi, Canberra, Moscow, Beijing; Addis Ababa, Washington, D.C., Paris and London are National Capitals. Jaipur, Bhopal, Patna and Bangalore in India are examples of administrative headquarters of states.

*Defence Towns* : Centres of military activities are known as defence towns. They are of three types: Fort towns, Garrison towns (bases of army contingents) and Naval bases. Jodhpur is a fort town; Mhow is a garrison town; and Kochi is a naval base.

*Cultural Towns* : Cultural towns are either religious, educational or recreational towns. Jerusalem, Mecca, Ayodhya, Hardwar, Madurai and Varanasi have religious importance, hence, they are called religious towns. Some places are known for educational institutions e.g. Varanasi, besides being

religious centre, has also been an important seat of learning. Cambridge and Allahabad are famous for their educational institutions. There are also recreational towns such as Las Vegas in the USA, Pattaya in Thailand and Darjeeling in India.

**Industrial Towns :** Mining and manufacturing towns have developed in mining and manufacturing regions. Kalgoorlie, Coolgardie, Dhanbad and Khetri are examples of mining towns. Towns which have developed due to setting up of industries such as Jamshedpur, Kanpur, Durgapur, Birmingham, Pittsburgh and Youngstown etc. are called industrial towns.

**Trade and Transport Towns :** Many old towns were famous as trade centres. Dusseldorf in Germany, Winnipeg in Canada, Lahore in Pakistan, Baghdad in Iraq and Agra in India have been important trade centres. Some towns have developed as transport towns. Two modes of transport have been responsible for the development of such towns. Port Towns are the centres of imports and exports and are located on the sea coasts e.g. Rotterdam in the Netherlands, Aden in Yemen and Mumbai in India.

The junctions of rail routes often develop into urban centres. Mughalsarai and Itarsi are examples of such towns in India.

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

Cities are viewed as engines of economic growth. But rapid growth of urban population

also brings problems along with opportunities. The process of urbanisation has far reaching consequences on both the rural and the urban settlements. *Urbanisation* is often defined as the process of change from rural to urban population. But it is not only a process of demographic growth of villages leading to formation of towns and cities, it involves many other social and economic changes, both quantitative and qualitative.

The new millennium is primarily urban. While in 1950, only 16 per cent of the world population was urban, today almost half of the world's people (47 per cent) live in cities. The rate of urbanisation is much more higher in developing countries than developed countries. It is expected to continue as shown in Fig 10.2.

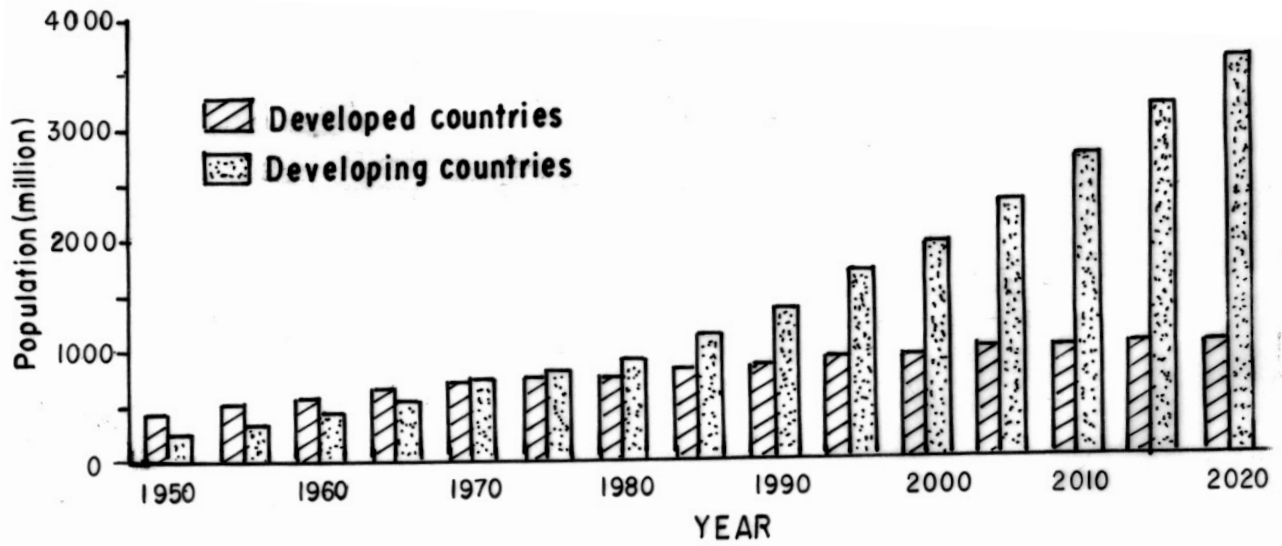
The temporal and spatial distribution of large cities of the world has also changed rapidly. While in 1920s, there were only 24 million plus cities in the world, the number rose to 198 in 1980s (Table 10.1). Today there are 350 cities with more than one million population.

While industrialised countries are already mostly urban, developing countries are rapidly becoming urban with 40 per cent urban population. By 2020, 52 per cent of people in these areas will be living in cities. The growth of urban population in developing countries has been rapid since 1945. Besides, there has also been a rapid increase in the number of very large cities or mega-cities in these countries since 1975. Following the United Nations definition, cities with more than 8

**Table 10.1 : The World Distribution of Million Cities (>1,000,000 Inhabitants)**

Year	No. of Million Cities	Mean Latitude N or S of Equator	Mean Population	Percentage of World Population Living in Million Cities
Early 1920s	24	44°30'	2.14	2.06
Early 1940s	41	39°20'	2.25	4.00
Early 1960s	113	35°44'	2.39	8.71
Early 1980s	198	34°07'	2.58	11.36

**Source :** Potter, R.B. and Unwin, T. (eds) (1992) *Teaching the Geography of Developing Areas*, Monograph 7, Developing Areas Research Group of the Institute of British Geographers

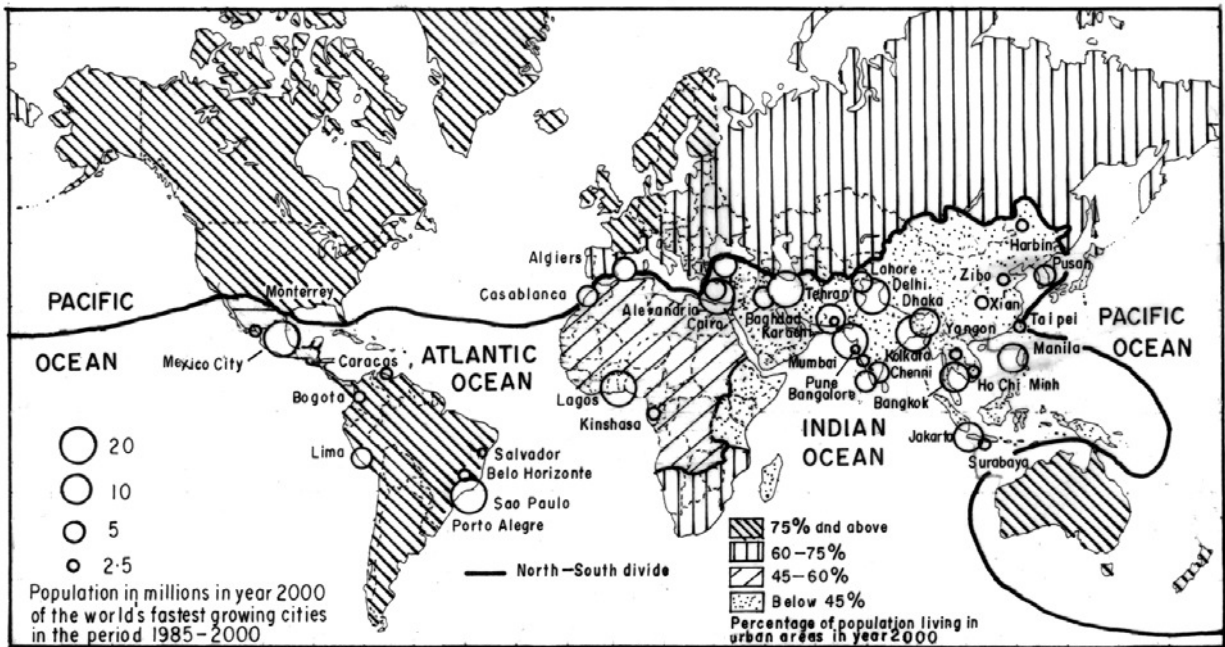


**Fig. 10.2** Urban Population in Developed and Developing Countries

million population are known as mega-cities. In 1990, 6 mega-cities were in developed countries and 14 in developing countries. There are wide variations in the size of urban population, rate of urbanisation and growth of mega-cities, even among the developing countries.

The most important aspect of world urbanisation is the striking difference in the emerging trends between the world's developed and developing regions (Fig. 10.3).

Asia provides some of the most dramatic examples of this trend. From a region of villages, Asia is fast becoming a region of cities and towns. Its urban population in 2000 was 1.3 billion. It was nearly a fivefold increase during last five decades. Already, Asia has more than 36 per cent of the world's urban population and 16 of the 30 largest cities in the world. By 2030 half of Asia's 4.9 billion projected population (53.4 per cent) will be living in urban areas. Almost all developing



**10.3** World's Fastest Growing Cities

**Table 10.2 : Largest Cities in the World : 1950, 2000**

Rank (1950)	City	Population (Million)	Rank (2000)	City	Population (Million)
1	New York	12.3	1	Mexico City	31.0
2	London	10.4	2	Sao Paulo	25.8
3	Rhine -Ruhr	6.9	3	Shanghai	23.7
4	Tokyo	6.7	4	Tokyo	23.7
5	Shanghai	5.8	5	New York	22.4
6	Paris	5.5	6	Beijing	20.9
7	Buenos Aires	5.3	7	Rio de Janeiro	19.0
8	Chicago	4.9	8	Mumbai	16.8
9	Moscow	4.8	9	Kolkata	16.4
10	Calcutta (Kolkata)	4.6	10	Jakarta	15.7
11	Los Angeles	4.0	11	Los Angeles	13.9
12	Osaka	3.8	12	Seoul	13.7
13	Milan	3.6	13	Cairo	12.9
14	Bombay (Mumbai)	3.0	14	New Delhi	12.7
15	Mexico City	3.0	15	Buenos Aires	12.7

countries, are experiencing high rates of urbanisation at an unprecedented rate. Karachi in Pakistan, with 1.1 million population in 1950 is estimated to have 20.6 million in 2015. Likewise, Cairo, Mumbai, Sao Paulo, Lagos, etc. are projected to have populations in excess of 20 million by 2015. It is estimated that by 2015, 153 of the world's 358 cities with more than one million population will be in Asia. It is expected that of the 27 mega-cities (with more than 10 million population) of the world in 2015, 15 will be located in Asia.

Urban growth processes in the world's developing regions have been different from those in developed regions. In the developed countries urban growth was accompanied by industrialisation. In developing countries demographic growth has preceded economic development. The unprecedented urban growth in these regions has been driven by lack of employment opportunities in rural areas rather than the pull of prospective jobs in towns and cities. London took 190 years to grow from a city of half a million population to 10 million and New York took 140 years; by contrast, Mexico City, Sao Paulo, Kolkata, Seoul and

Mumbai all took less than 75 years to grow from half a million to 10 million. *Over urbanisation* or uncontrolled urbanisation has given rise to slums and squatter settlements making urban life miserable world over. Over 600 million people live under life threatening situations in cities and 300 million live in extreme poverty.

The emerging urban scenario in developing countries has robbed the rural areas of its able labour force. Ecological degradation and social pollution has sapped their energy. At the same time, the urban settlements too have suffered from shortage of housing, transport, health and other civic amenities. Both these places are devoid of quality-life. In Africa, only one-third of all households are connected to potable water. In Asia Pacific, only 38 per cent of urban households are connected to sewerage system. In many cities in the developing countries, an increasing proportion of the population lives in substandard housing or on the streets. In most of the million plus cities in India, one in four inhabitants live in illegal settlements, which is growing twice as fast as the rest of the cities.

Even in the Pacific Asia, which is marked with economic successes, it was estimated that

by turn of the twentieth century some 60 per cent of the region's urban population lived in squatter settlements or slums.

*Squatter settlement* in general, is a residential area in an urban locality inhabited by the very poor who have no access to tenured land of their own, and hence 'squat' on vacant land, either private or public. Nature of such settlements and their names vary from one country to the other. Commonly they are also referred to as shanty towns or informal settlements. In many countries, they are known by different local names such as : *Ranchos* in Venezuela ; *Favelas* in Brazil ; *Keveittis* in Myanmar and *Bustee* or *Jhuggi - Jhopri* in India. They comprise of communities housed in self-constructed shelters under conditions of informal or traditional land tenure. They are common features of developing countries and are typically the product of an urgent need for shelter by the poor. They are characterised by a dense proliferation of small, make shift shelter built from diverse materials, degradation of the local ecosystem and by severe social problems. They occur when the current land administration and planning fail to address needs of the whole community. These areas are characterised by

rapid, unstructured and unplanned development. On a global scale, they are a significant problem.

A squatter settlement has three defining characteristics : physical; social; and legal.

*Physical Characteristics:* Due to inherent 'non-legal' status, a squatter settlement has services and infrastructure below the adequate minimum levels. As such water supply, sanitation, electricity, roads, drainage, schools, health centres, and market places are either absent or arranged informally.

*Social Characteristics :* Most of the squatter households belong to lower income group. They are predominantly migrants, but many are also second or third generation squatters.

*Legal Characteristics :* Such settlements lack land ownership.

Quite often squatter settlements and slums are used as synonyms, while they are different terms. *Slums* are defined as residential areas that are physically and socially deteriorated and in which satisfactory family life is impossible. A major index of slum condition is bad housing, which means such dwellings that have inadequate light, air, toilet and bathing facilities; that are damp and in bad repair; that do not afford opportunity for family privacy;

#### **Box 10.1: Dharavi-Asia's Largest Slum**

"...Buses merely skirt the periphery. Autorickshaws cannot go there, anomalously, Dharavi is part of central Bombay, where threewheelers are banned.

Only one main road traverses the slum, the miscalled '90-foot road', which has been reduced to less than half that for most of its length. Some of the side alleys and lanes are so narrow that not even a bicycle can pass. Whole neighbourhood consist of tenement buildings, two or three storeys high with rusty iron stairways to the upper part, where a single room is rented by a whole family, sometimes twelve or more people; it is a kind of tropical version of the industrial dwelling of Victorian London's East End.

But Dharavi is a keeper of more sombre secrets than the revulsion it inspires in the rich, a revulsion, moreover, that is in direct proportion to the role it serves in the creation of the wealth of Bombay. In this place of shadowless, treeless sunlight, uncollected garbage, stagnant pools of foul water, where the only non-human creatures are the shining black crows and long grey rats, some of the most beautiful, valuable and useful articles in India are made. From Dharavi come delicate ceramics and pottery, exquisite embroidery and zari work, sophisticated leather goods, high-fashion garments, finely wrought metalwork, delicate jewellery settings, wood carvings and furniture that will find its way into the richest houses, both in India and abroad...

Dharavi was an arm of the sea, that was filled by waste, largely-produced by the people who have come to live there: Untouchables, or Scheduled Castes as they are now known, and poor Muslims. It comprises rambling buildings of corrugated metal, 20 metres high in places, used for the treatment of hides and tanning. There are pleasant parts, but rotting garbage is everywhere..."

(Seabrook, 1996, pp. 50, 51-52)

that are subject to fire hazard and that overcrowd the land leaving no space for recreational use. Dharavi (Mumbai) in India is Asia's largest slum.

Thus *squatter* refers to legal position of the settlement and *slum* refers to the condition of a settlement.

An UNCHS report points out that about 30 to 60 per cent of residents of most large cities in developing countries live in informal settlements. South Africa has a high rate of population growth that is impacting city in the form of squatter settlements. One such settlement is Imizamo Yethu in the Hout Bay

area of Cape Town. The improvement of living condition in such settlements is one of the most complex and pressing challenges before developing countries. In view of the changing needs, contemporary governance involve multiple stakeholders, interdependent resources and actions and shared purposes between the public and private, formal and informal sectors. For example, changes in housing finance policy is required in developing countries so that small finance schemes are made available to local communities and they are supported in constructing houses and other facilities.

## Exercises

### Review Questions

1. Answer the following questions briefly:
  - (i) What is a settlement?
  - (ii) What are the bases of classifying settlements?
  - (iii) What are rural settlements?
  - (iv) What is urbanisation?
  - (v) What is the number of million plus cities in the world today?
2. Distinguish between:
  - (i) Site and situation of settlements;
  - (ii) Compact and scattered settlements;
  - (iii) Administrative and cultural settlements;
  - (iv) Squatter settlements and slums.
3. Describe the distribution pattern of rural settlements in the world.
4. How does a rural settlement pattern reflect the influence of environmental conditions: physical and cultural? Explain.
5. Discuss the criteria used by different countries for designating settlements as urban.
6. Discuss the functional classification of towns giving suitable examples from each type.
7. 'Distribution of urban population and its growth rate is very uneven in the world.' Explain
8. Discuss the problem associated with the urban settlements in developing countries.

### Geographical Skills

9. On an outline map of the world show the locations of all the 15 cities of 1950 and 2000 as listed in Table 10.2 and label them.
10. Study Table 10.2 and answer the following question:
  - (i) How many cities are common in both years i.e. 1950 and 2000?
  - (ii) Which cities of 1950 do not find place in the list for 2000?
  - (iii) Which are the new entrants in 2000?
  - (iv) Classify cities according to continents for 1950 and 2000.
  - (v) What are your findings on the basis of the answers given above and how would you explain them?



# APPENDICES

## I

### WORLD POPULATION : SELECTED DATA, 2000

APPENDIX

<i>Region/Country</i>	<i>Surface Area (Thousand Sq. Km)</i>	<i>Population 2000 (Million)</i>	<i>Density of Population (Per Sq. Km)</i>	<i>Growth 1990-95</i>	<i>Rate 1995- 2000</i>
(1)	(2)	(3)	(4)	(5)	(6)
<b>World</b>	–	<b>6,055</b>	–	<b>1.7</b>	<b>1.3</b>
<b>Africa</b>	–	<b>784.4</b>	–	<b>2.9</b>	<b>2.4</b>
Algeria	2,382	31.5	13	2.7	2.3
Angola	1,247	12.9	11	3.7	3.2
Benin	113	6.1	57	3.1	2.7
Botswana	582	1.6	3	2.9	1.9
Burkina Faso	274	11.9	41	2.8	2.7
Burundi	28	6.7	265	2.9	1.7
Cameroon	475	15.1	32	2.8	2.7
Central African Republic	623	3.6	6	2.6	1.9
Chad	1,284	7.7	6	2.7	2.6
Congo, Democratic Republic of	2,345	51.7	22	3	2.6
Congo, Republic of	342	2.9	9	–	2.8
Cote d'Ivoire	322	14.8	50	3.7	1.8
Egypt	1,001	68.5	64	2.2	1.9
Eritrea	118	3.9	41	–	3.8
Ethiopia	1,104	62.6	64	3.1	2.5
Gabon	268	1.2	5	3.3	2.6
Ghana	239	20.2	85	3	2.7
Guinea	246	7.4	30	3	0.8

(1)	(2)	(3)	(4)	(5)	(6)
Guinea-Bissau	36	1.2	43	2.1	2.2
Kenya	580	30.1	53	3.4	2
Lesotho	30	2.2	67	2.5	2.2
Liberia	111	3.2	32	3.3	8.2
Libyan Arab Jamahiriya	-	5.6	-	3.5	2.4
Madagascar	587	15.9	27	3.3	3
Malawi	118	10.9	110	3.3	2.4
Mali	1,240	11.2	9	3.2	2.4
Mauritania	1,026	2.7	3	2.9	2.7
Mauritius	2	1.2	584	1	0.8
Morocco	447	28.4	64	2.4	1.8
Mozambique	802	19.7	23	2.8	2.5
Namibia	824	1.7	2	3.2	2.2
Niger	1,267	10.7	9	3.3	3.2
Nigeria	924	111.5	32.7	3.1	2.4
Rwanda	26	7.7	345	3.4	7.7
Senegal	197	9.5	49	2.7	2.6
Sierra Leone	72	4.9	70	2.7	3
Somalia	638	10.1	14	3.2	4.2
South Africa	1,221	40.4	35	2.4	1.5
Sudan	2,506	29.5	13	2.8	2.1
Togo	57	4.6	83	3.2	2.6
Tunisia	164	9.6	62	2.1	1.4
Uganda	241	21.8	113	3	2.8
United Republic of Tanzania	-	33.5	-	3.4	2.3
Zambia	753	9.2	14	2.8	2.3
Zimbabwe	391	11.7	33	3	1.4
<b>Asia</b>	-	<b>3,682.60</b>	-	<b>1.8</b>	<b>1.4</b>
Afghanistan	652	22.7	41	6.7	2.9
Bangladesh	144	129.2	1,007	2.4	1.7
Bhutan	-	2.1	-	2.3	2.8
Cambodia	181	11.2	68	2.5	2.3

(1)	(2)	(3)	(4)	(5)	(6)
China	9,598	1,277.60	135	1.4	0.9
Democratic People's Republic of Korea	-	24	-	1.9	1.6
Hongkong, China	-	6.9	-	0.8	2.1
India	3,287	1,013.70	342	1.9	1.6
Indonesia	1,905	212.1	116	1.8	1.4
Iran (Islamic Republic of)	1,633	67.7	39	2.7	1.7
Iraq	438	23.1	53	3.2	2.8
Israel	21	6.2	302	4.7	2.2
Japan	378	126.7	348	0.4	0.2
Jordan	89	6.7	55	3.4	3
Kuwait	18	2	111	-5.8	3.1
Lao People's Democratic Republic	-	5.4	-	3	2.6
Lebanon	10	3.3	423	2	1.7
Malaysia	330	22.2	71	2.4	2
Mongolia	1,567	2.7	2	2.6	1.7
Myanmar	802	45.6	23	2.1	1.2
Nepal	147	23.9	161	2.5	2.4
Oman	212	2.5	11	3.6	3.3
Pakistan	796	156.5	179	2.7	2.8
Philippines	300	76	253	2.1	2.1
Republic of Korea	-	46.8	-	0.8	0.8
Saudi Arabia	2,150	21.6	10	3.4	3.4
Singapore	1	3.6	6,587	1	1.4
Sri Lanka	66	18.8	300	1.3	1
Syrian Arab Republic	185	16.1	88	3.6	2.5
Thailand	513	61.4	119	1.3	0.9
Turkey	775	66.6	85	2	1.7
United Arab Emirates	84	2.4	35	2.3	2
Vietnam	332	79.8	241	2	1.6
Yemen	528	18.1	33	3.5	3.7