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1 How And Where Do People Live?

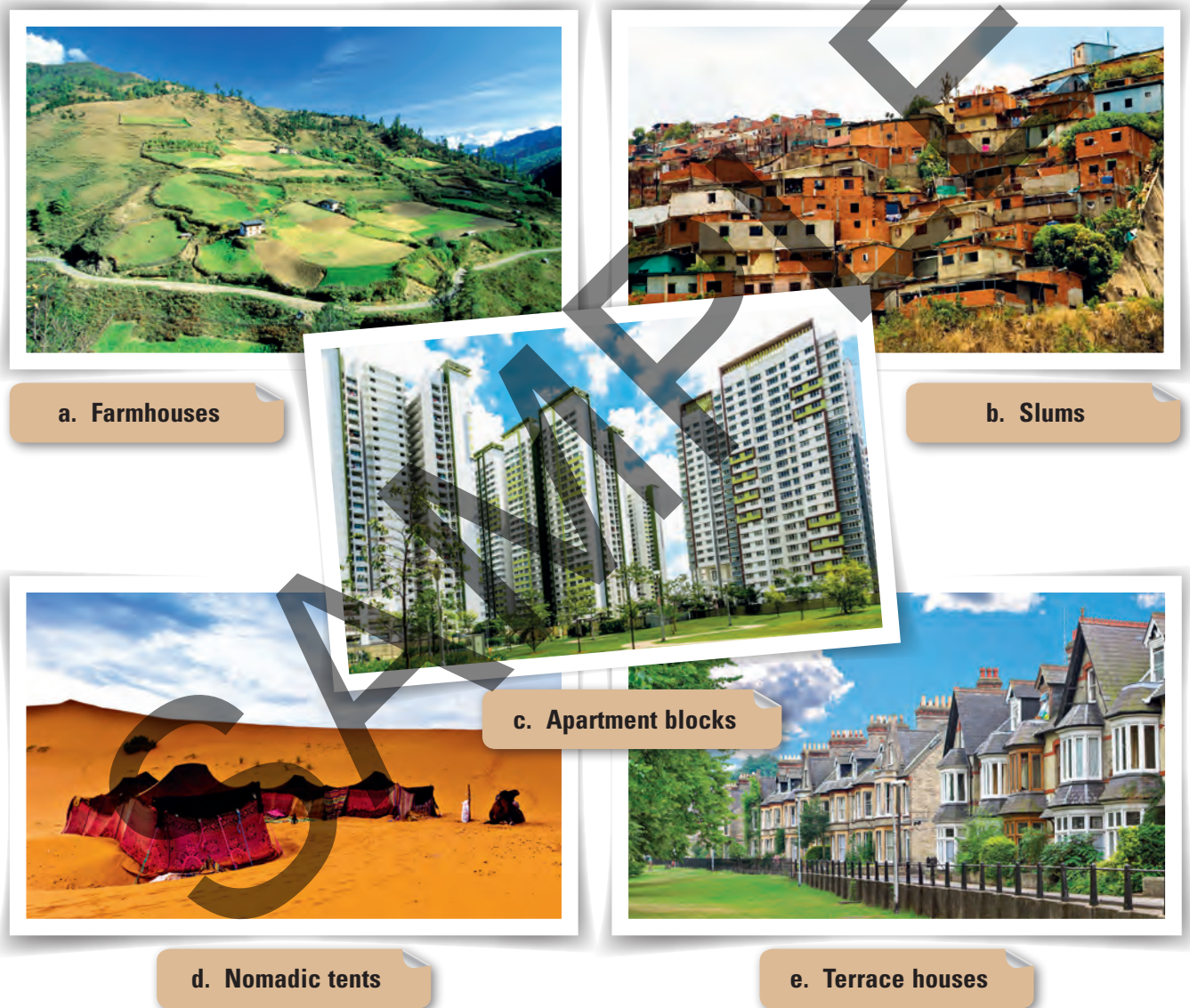


Figure 1.1

Think about this!

These photographs show some of the places in which people live. Describe the different types of environments that people live in. Which of these places would you choose to live in? Suggest reasons for your choice.

An important area of geographical study is the way people live and how they interact with the natural environment.

A **human environment** is where the surroundings have been changed by people. A human environment includes settlements and economic activities. A natural environment has not been altered by people. A natural environment includes forests, mountains and oceans.

A human environment may be rural or urban. In a **rural environment**, people live on farms and villages, and carry out activities such as fishing and forestry.

In contrast, an **urban environment** is a built-up area such as a town or city with a large number of people and buildings. People carry out activities such as retail and banking.

Let's try it!

Figures 1.2(a) and (b) show a natural environment and a human environment respectively. Describe the natural and human environments shown in the photographs.



Figure 1.2(a) A natural environment.



Figure 1.2(b) A human environment.

In this book, you will explore how and where people live, and how people cope with the challenges that arise in the urban environments that they live in.

How has human society developed?

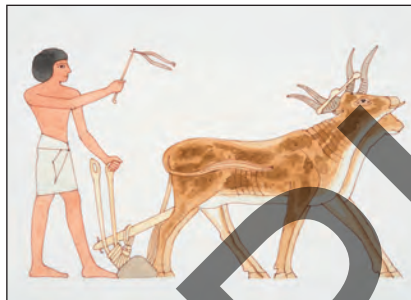
A human society refers to a group of people who live in a country, region or area and who share laws, organisations and customs. People in a society often live, work and play together.

Human societies have existed for a very long time. Throughout human history, people predominantly lived in rural environments. It was only in recent times, from 200 years ago, that societies started to live in cities in large numbers. Figure 1.3 shows a timeline of how human societies developed.



Hunter-gatherer society

People hunted wild animals and gathered food. They mostly lived a nomadic lifestyle, moving from place to place in search of food.



Agrarian society

People started to settle down in larger groups, growing crops and rearing animals for food, leading to an agrarian society. An agrarian society depends mainly on the growing of crops and raising of livestock.



Industrial society

Industrialisation began about 200 years ago with the invention of the steam engine, which uses coal as its source of energy and which could power machines. Advancements in technology allowed goods to be mass produced in factories. Machines also replaced much of the work people used to do.

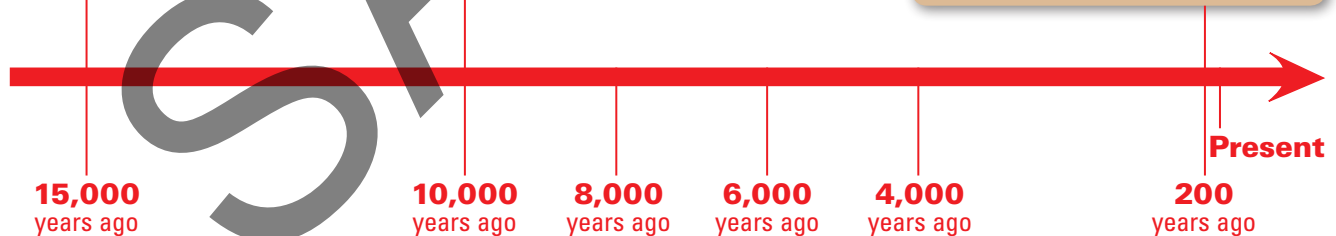


Figure 1.3 Key stages in the development of human society through the years.

Hunter-gatherer society

Until around 10,000 years ago, people were mostly hunter-gatherers.

Hunter-gatherers are nomadic, which means they move around in search of food. They do not build permanent shelters to live in. Houses are usually made of simple materials such as wood and leaves. They live together in small groups or bands of 20 to 40 persons.

Hunter-gatherers hunt wild animals such as fish, deer and buffaloes using spears and arrows. They also gather wild plants, seeds, fruits and nuts for food. In Southeast Asia, such hunter-gatherers kill birds, squirrels and monkeys using blowpipes.

Hunter-gatherers are still living in many parts of the world. They include the Efe people in the Democratic Republic of the Congo (see Figure 1.4), the !Kung Bushmen of the Kalahari Desert, and the Spinifex people or Pila Nguru in Western Australia.

Bookmark it!



Find out more about these hunter-gatherers in contemporary times. Visit <http://www.huntercourse.com/blog/2011/05/amazing-hunter-gatherer-societies-still-in-existence>.

Figure 1.4 Efe people, who are part of the Bambuti group of hunter-gatherers in the Democratic Republic of the Congo.



Agrarian society

Around 10,000 years ago, people discovered ways to grow crops and raise livestock for food. They no longer depend on hunting and gathering for their daily survival and could settle down in specific locations. People adopted a sedentary lifestyle where they lived in fixed places. This led to the growth of an agrarian society.

An **agrarian society** depends mainly on the growing of crops and raising of livestock. At first, people worked long hours on farms for small harvests to feed themselves. They used simple inventions such as animal-drawn ploughs to prepare the land for growing crops. They also irrigated the land using simple channels to direct water from rivers to farms. They grew crops such as wheat and corn, and raised livestock such as chickens and cows. At times, people grew more crops than they could consume. The excess crops were then sold for a profit or traded for other things.



Figure 1.5 People harvesting rice crop by hand in Sawa, Indonesia.



Agrarian societies developed in places with fertile land which encouraged crop cultivation, such as at the mouths of major rivers. Large farming communities still existing today include those found at the Nile Delta in Egypt and on the Yellow River in China. Figure 1.6 shows Zhaoxing Dong Village, a farming community in Guizhou, China.

Many farming settlements gradually developed into towns and cities. With excess crops, many early agrarian societies grew to become trading centres. People were attracted to trading centres, of which many developed into ancient cities. Some ancient cities include Xi'an, founded in 1100 BCE in China, and Lisbon, founded in 1400 BCE in Portugal.

Figure 1.6 Zhaoxing Dong Village, a farming community in Guizhou, China.



Industrial society

The development of industrial societies started about 200 years ago. An **industrial society** depends mainly on the manufacturing of goods using machinery and technology. Such a society is driven by advances in science and technology.

Activities such as commercial farming and manufacturing are carried out for profit. In commercial farming, crops are grown on large farms for sale. Machines such as tractors are used to improve the efficiency of farm work (refer to Figure 1.7). Through manufacturing industries such as a tool and die plants, raw materials can be turned into finished goods for sale (refer to Figure 1.8). Paper, cloth and cars are some examples of manufactured goods.

Early industrial cities were found near waterways such as rivers, near sources of energy such as coal mines, or near places where raw materials could be easily obtained, such as forests. This is because manufacturing and commercial farming require transport, energy and raw materials.

Link it!



Refer to **All About Geography Secondary One Environment and Resources**, Chapter 5, pages 200 to 202, to learn more about industrial growth and the Industrial Revolution.

Bookmark it!



Visit <https://www.thoughtco.com/sectors-of-the-economy-1435795> to find out about the different sectors of an economy.



Figure 1.7 This tractor is an example of agricultural machinery.



Figure 1.8 A tool and die plant in River Rouge, Michigan, United States of America, in 1940. Tool and die plants produce machinery parts that support the manufacturing of goods.

Newcastle upon Tyne, United Kingdom, is an example of an early industrial city. Newcastle developed due to its abundant deposits of coal. It began supplying London and other cities with coal as early as the 14th century, when coal was first discovered in the area. The coal industry played a major role in the development of Newcastle. However, the coal industry started declining in the late 19th century. Today, the wealth of the city is largely contributed by commercial activities. The city remains an important business and commercial centre (refer to Figure 1.9).

In Seattle, United States of America, the timber and copper industries flourished due to the abundance of these natural resources near the city. Timber is used in the construction of houses and to make furniture and paper, while copper is used in pipes, wires and coins.

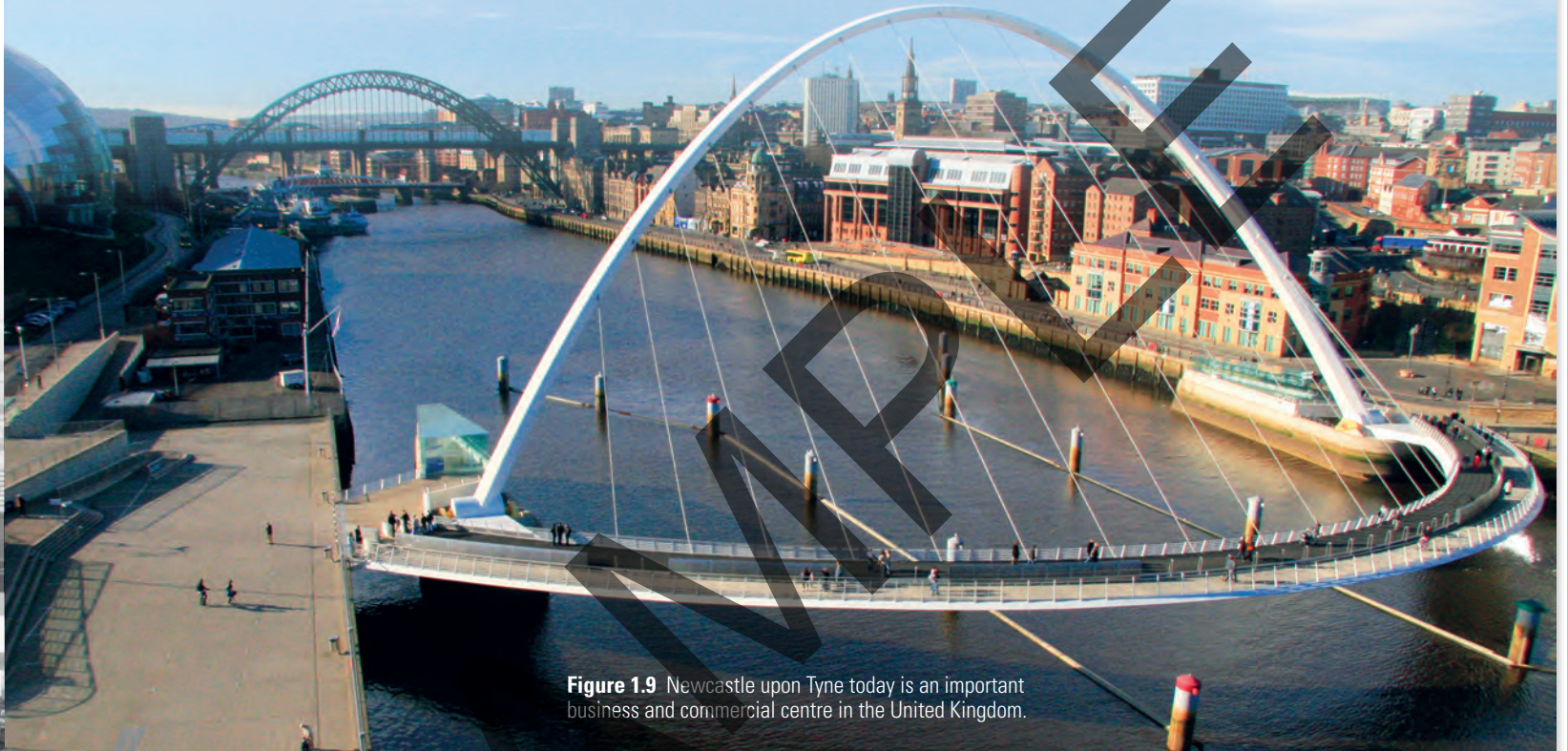


Figure 1.9 Newcastle upon Tyne today is an important business and commercial centre in the United Kingdom.

Let's try it!

1. Read the following text:

These groups of people usually belong to a small community. They have deep knowledge of their environment, which supplies them with food, water and shelter. But it takes a large land area to support a person in this community. Often, people will have to go hungry if there is nothing in the environment for them. Their population size is thus kept rather small — usually made up of a few households.

- (a) Which type of human society is described in the text?
 - (b) Provide evidence from the text for your answer.
2. How do the activities in an industrial society differ from those in an agrarian society?

Where do people live today?

According to the United Nations (2012), 52 per cent of the world's population lived in cities in 2010. The increase in the proportion of people living in cities is known as **urbanisation**.

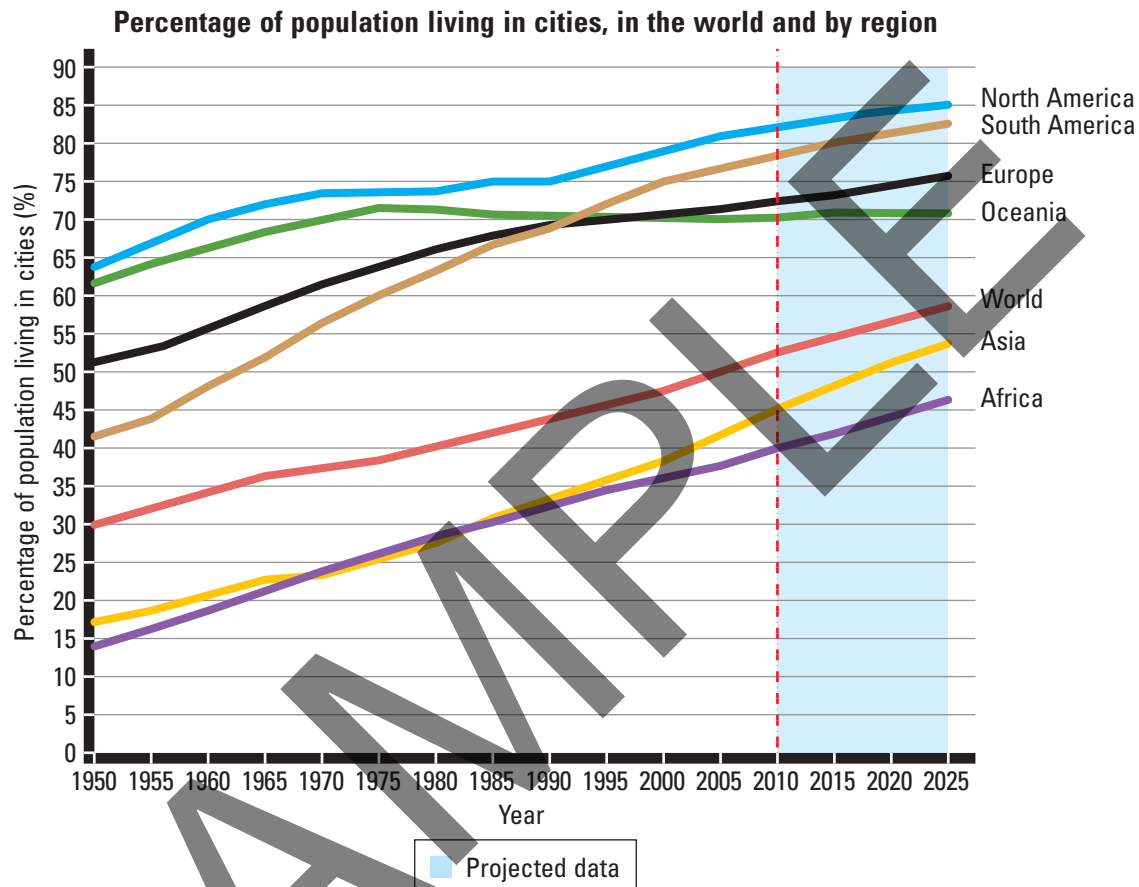


Figure 1.10 Percentage of population living in cities in the world, by region, including projected data for 2011 to 2025. Adapted from: United Nations (2012).

Geographical Data Skills

Figure 1.10 is a comparative line graph. A comparative line graph shows two or more line graphs. In Figure 1.10, each line graph represents how the percentage of population living in cities in each region varies over time.

In 2010, North America was the most urbanised region with 82 per cent of its population living in cities. In comparison, Africa was the least urbanised region with 40 per cent of its population living in cities in 2010.

The rate of change can be seen from a line graph. It is how fast something that is measured in the graph changes over a period of time. Hence, in Figure 1.10, the steeper the line, the faster the region is going through urbanisation.

Let's try it!

Refer to Figure 1.10.

1. What is the increase in percentage of North America's population living in cities from 1950 to 2010?
2. Which region experienced the greatest increase in percentage of population living in cities from 1950 to 2010?
3. Which region is projected to experience the greatest increase in percentage of population living in cities from 2010 to 2025?

Features of cities

Cities are large, densely populated settlements. Cities are characterised by a large population size, high population density, a cosmopolitan population and a built-up area.

Large population size

Cities have a larger population size compared to the rural areas. The total number of people in an area is known as **population size**. Cities usually have a large population size due to natural increase and rural-urban migration.

Births and deaths are natural causes of population change. The difference between the birth rate and death rate of a country or place is called the natural increase. Natural increase is calculated using this formula:

$$\text{Natural increase} = \text{Birth rate} - \text{Death rate}$$

Birth rate refers to the number of live births for every 1,000 people in a year, whereas death rate refers to the number of deaths for every 1,000 people in a year.

For example, in 2013, Singapore's birth rate was 9.3 per 1,000 people and its death rate was 4.6 per 1,000 people. Therefore, Singapore's natural increase was:

$$\begin{aligned}\text{Natural increase} &= \text{Birth rate} - \text{Death rate} \\ &= 9.3 - 4.6 \\ &= 4.7\end{aligned}$$

This means that for every 1,000 people living in Singapore, there was a natural increase of 4.7 people in 2013.

Other than natural increase, rural-urban migration also contributes to the large population size in cities. **Rural-urban migration** refers to the movement of people from rural areas to cities to live and work. People often view cities as places with better healthcare and sanitation facilities, as well as more opportunities for work and education.

Geographical Concepts



Scale

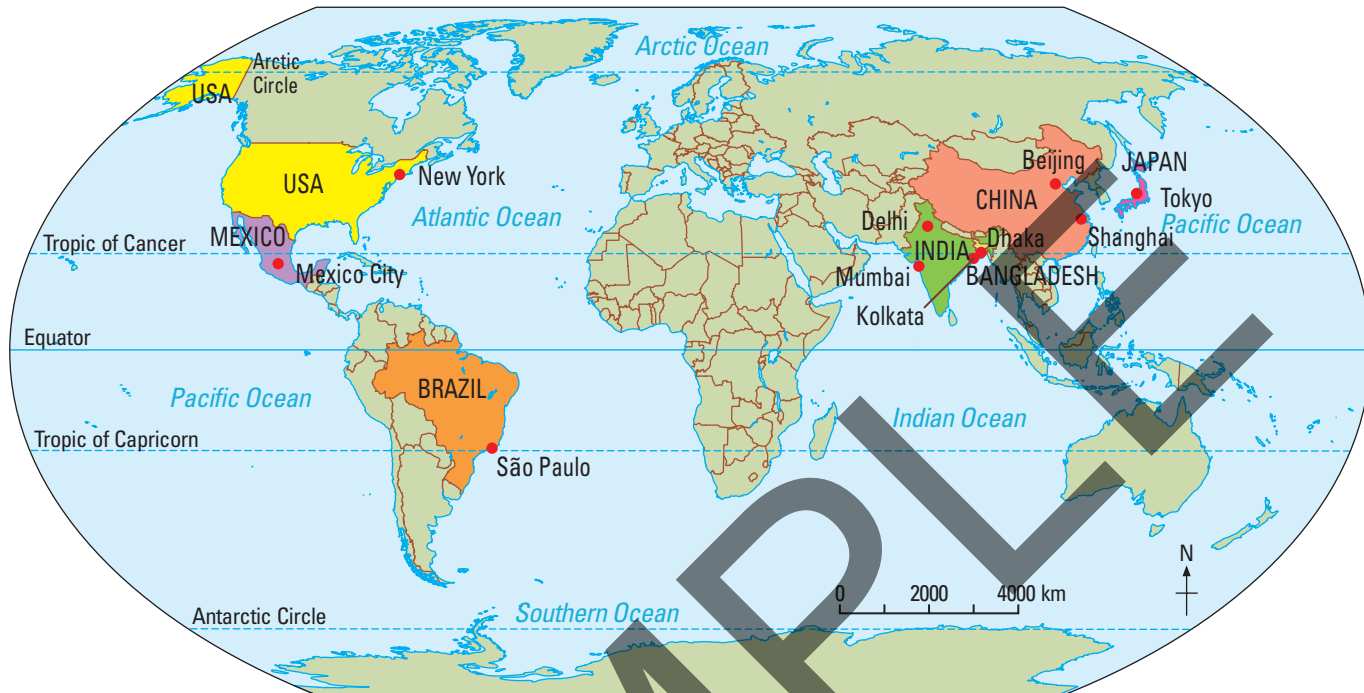
Some countries have a larger number of cities while other countries have fewer cities. China, for example, has a total of 656 cities, whereas Singapore is a city in itself.

Link it!



To learn more about why people migrate to cities, refer to Figure 3.17 on page 79 of Chapter 3.

Figure 1.11 shows the 10 largest cities in the world, most of which are located in Asia. These are megacities which are cities with more than 10 million people. The city with the largest population in the world is Tokyo, Japan, with a total population of 37.2 million, according to the United Nations in 2012.



Rank	City	Population (correct to one decimal place)
1	Tokyo, Japan	37.2 million
2	Delhi, India	22.7 million
3	Mexico City, Mexico	20.5 million
4	New York City, United States of America	20.4 million
5	Shanghai, China	20.2 million
6	São Paulo, Brazil	19.9 million
7	Mumbai, India	19.7 million
8	Beijing, China	15.6 million
9	Dhaka, Bangladesh	15.4 million
10	Kolkata, India	14.4 million

Bookmark it!



Visit <http://www.bbc.com/news/magazine-16761784> to find out more about the challenges of determining the biggest city in the world.

Figure 1.11 Ten largest megacities in the world in terms of population size.
Adapted from: United Nations (2012).

High population density

Population density refers to the number of people living in a unit area of land. A high population density results when there is a large population in a small land area (refer to Figure 1.12). Population density is calculated using the following formula:

$$\text{Population density} = \frac{\text{Number of people}}{\text{Area they occupy (in square kilometres)}}$$

For example, we can calculate the population density of Hong Kong and New York City by using each city's population size and land area (refer to Figure 1.12, which shows the population size and land area of the two cities in 2012).

	Hong Kong	New York
Population size	7,154,600	8,336,697
Land area	1,104 km ²	784 km ²

Figure 1.12 Population size and land area of Hong Kong and New York City as of 2012.
Adapted from: Census and Statistics Department, Hong Kong, and United States Census Bureau (2013).

The population density of Hong Kong and New York City can be calculated as follows:

$$\frac{7,154,600 \text{ (Hong Kong's population size)}}{1,104 \text{ km}^2 \text{ (Hong Kong's land area)}} = 6,481 \text{ people per km}^2$$

$$\frac{8,336,697 \text{ (New York City's population size)}}{784 \text{ km}^2 \text{ (New York City's land area)}} = 10,634 \text{ people per km}^2$$

New York's population density is higher than Hong Kong's.



Figure 1.13 A street scene in densely populated Hong Kong.

Link it!

Refer to Figure 3.22 on page 83 of Chapter 3 to find out the top 10 cities with the highest population densities.

Figure 1.14 shows the distribution of population densities in China.

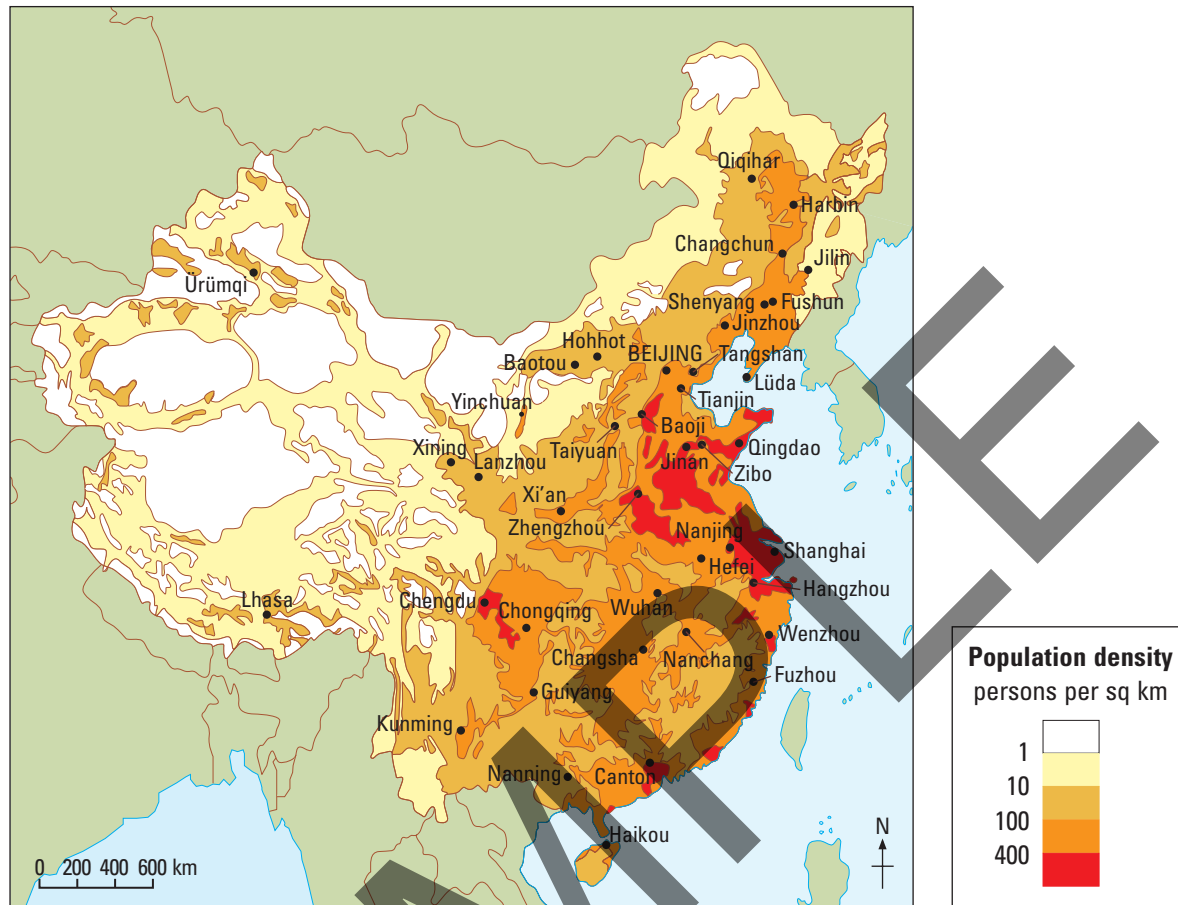


Figure 1.14 Population density distribution in China in 2010.
Adapted from: *Encyclopædia Britannica*.

**Geographical
Data Skills**

Figure 1.14 is an example of a choropleth map, which shows spatial distribution by using colours or shadings to represent data. Choropleth maps show how the data differs from place to place.

Regions in China with the highest population density are shaded red while the areas with the lowest population density are shaded pale yellow or white. Most of the areas with low population densities are in the western part of China while most of the areas with high population densities are in the east.

Let's try it!

In 2015, Singapore had a population of 5,535,000 and a land area of 719 square kilometres.

- Calculate Singapore's population density in 2015.
- Is this population density considered high or low? Suggest reasons for Singapore's population density.

Cosmopolitan population

A **cosmopolitan city** has a multicultural society with many people from diverse cultural backgrounds. These people from different cultural backgrounds are comfortable interacting with one another, as they are open to different ideas and ways of doing things. In 2010, the foreign-born population in New York City, United States of America, made up 36.8 per cent of its total population (refer to Figure 1.15), according to the World Cities Culture Report. Today, as many as 800 different languages are spoken in New York.

Link it!

With a cosmopolitan population, there are different cultures that will exist in a city. Refer to **All About Geography Secondary One Environment and Resources**, Chapter 1, page 10, to learn more about culture.



Figure 1.15 A cosmopolitan population in New York City, United States of America.

Built-up area

A built-up area is covered by buildings and roads. It is characterised by dense transport networks, tall buildings for offices and housing, as well as amenities and facilities such as schools and shopping malls. The city of Tokyo, Japan, is an example of a built-up area (refer to Figure 1.16).

Many people live in cities today. As human societies developed, they made changes to the natural environment. Industrialisation changed the way people work and live. Some issues or challenges that cities face are housing shortage, traffic congestion and floods. In the following chapters, you will learn more about these issues and how they can be managed in order to provide a better living environment for everyone.

Figure 1.16 The city of Tokyo.



Key Terms

Human environment (p3): Where the surroundings have been changed by people.

Rural environment (p3): Where people live on farms and in villages, and carry out activities such as fishing and forestry.

Urban environment (p3): A built-up area such as a town or city with a large number of people and buildings.

Hunter-gatherers (p5): Nomadic people who move around in search of food and do not build permanent shelters to live in.

Agrarian society (p6): A society that depends mainly on the growing of crops and raising of livestock.

Industrial society (p8): A society that depends mainly on the manufacturing of goods using machinery and technology.

Urbanisation (p10): The increase in the proportion of people living in cities.

Population size (p11): The total number of people living in an area.

Rural-urban migration (p11): The movement of people from rural areas to cities to live and work.

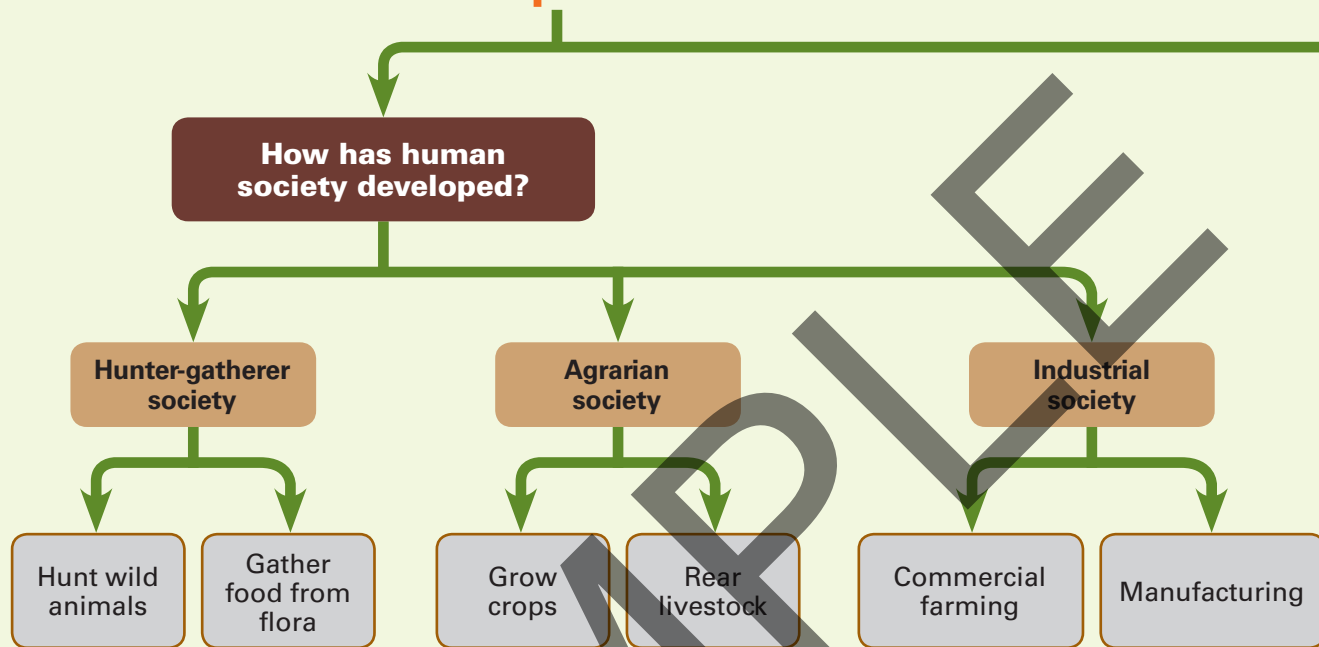
Population density (p13): The number of people living in a unit area of land.

Cosmopolitan city (p15): A city with a multicultural society with many people from diverse cultural backgrounds.



Summary

How And Where Do People Live?





Where do people live today?

Features of cities

Large population size

High population density

Cosmopolitan population

Built-up area

