

The rush to cities

Today, millions of people are moving from rural areas to urban areas each year. Already many cities cannot provide resources and services for their populations.

Unsustainable resource use

People in cities are using unsustainable amounts of resources. People in cities are:

- consuming too many resources too quickly
- wasting resources such as water and energy
- polluting the environment by using cars too often
- building inefficient buildings that use large amounts of land and resources.

Inadequate services

As urban populations grow, cities cannot provide services to all the people who live in them. Already, most cities must bring in food and water from other places to provide for their populations. Many waste removal systems and transport systems are running at **capacity**. These systems will not be able to cope in the future as urban populations continue to grow. In cities with rapid population growth, many of these problems are already reaching crisis point.

Fast fact

It is estimated that Earth's urban populations are growing by 180 000 people daily. In China an estimated 8.5 million people move to cities every year.

Some cities in China are growing so rapidly that city streets are becoming very crowded.



Chongqing suffers from poor air quality due to pollution.

CASE STUDY

Chongqing, the fastest growing city

In 2007, the United Nations State of the World Cities Report named Chongqing, in China, as the fastest growing city in the world. Chongqing is currently home to approximately 30 million people. In the next 10 years, Chongqing's population is expected to rise by four million.

A growing population

The population of Chongqing is growing rapidly, as the Chinese government encourages people in rural areas to move to urban areas. China's industries are expanding, so more workers are needed in cities each year. China has many cities with over 10 million people, called megacities. In 1978 only 18 per cent of Chinese lived in cities, but this figure has now risen to 50 per cent.

Problems with services and air pollution

Chongqing is growing so rapidly that services cannot be provided for those living in the city. There are problems in providing reliable waste removal services and, because the population is growing faster than Chongqing's industries, there are no longer enough jobs.

Chongqing also has problems with air pollution. Chongqing's biggest industries are steel production and motorbike and car manufacture. Most of these industries are based in the city centre, and air pollution often spreads out across the city. Most days the city is covered in a thick cloud of smog.

Fast fact

By 2030, it is predicted that the number of people living in cities around the world will have grown to almost 5 billion.

Towards a sustainable future: Ecocities

Countries around the world could work towards planning and building ecocities. Ecocities use resources efficiently and reduce environmental impacts.

What is an ecocity?

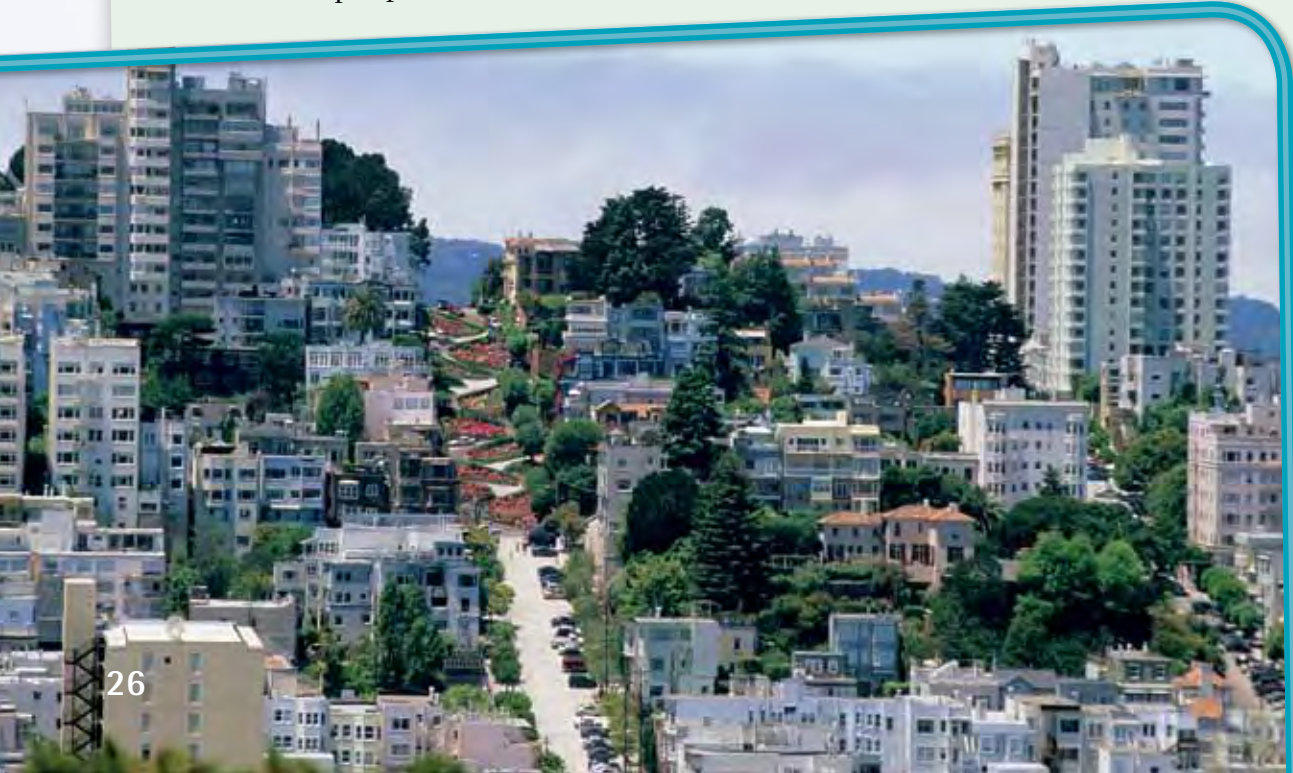
An ecocity is a city that will be sustainable into the future, because it minimises impacts on the environment. The term 'ecocity' is short for 'ecologically sustainable city'. In China, trial ecocities are being built. There are already plans to build at least 400 new ecocities in the next 20 years if the trials are successful.

Reducing environmental impacts

Ecocities aim to reduce their impacts on the environment by:

- using small amounts of land to house large numbers of people
- using resources efficiently by building green buildings and homes
- conserving resources by using green technologies such as water recycling and renewable energy.

As Earth's population continues to grow, ecocities will be vital for a sustainable future. This is particularly the case in many parts of Asia, where large numbers of people are moving to urban areas.



In the future, large sprawling cities may have more green buildings and trees, as ecocities will.



Plans for Dongtan show the environmental features of China's first ecocity, such as solar panels and green plants.

CASE STUDY

Dongtan ecocity

Dongtan, in China, has been planned as a demonstration ecocity. It will provide other countries with a model for how to develop ecocities.

Housing urban populations

Dongtan ecocity will provide a home for many thousands of people. The city will be located on Chongming Island in the Yangtze River delta, about an hour's ferry ride from Shanghai. By 2050 Dongtan could house approximately 500 000 people.

Using resources efficiently

Dongtan ecocity will use resources efficiently to minimise its impacts on the environment. The city is designed to be 'beautiful and truly sustainable with a minimal ecological footprint'. Dongtan will:

- recycle water and waste
- use energy from renewable sources
- ban cars that release pollution from the city centre.

Fast fact

Dongtan is one of nine new cities planned for the area around Shanghai. It is hoped that these cities will relieve crowding in Shanghai, which is home to over 20 million people.

What can you do?

Help your community become sustainable

You can make suggestions about how to help your community become sustainable. You can also make your household more sustainable.

Take action in your community

You can suggest ways to use fewer resources, or use resources more efficiently. Follow the steps below to take action in your community.

Action Plan

1. Find out whether your community has any of the following:
 - green buildings, or buildings that use some green technologies
 - reliable transport and waste-disposal services
 - programs to recycle household rubbish
 - a range of facilities, such as hospitals, roads, parks and public libraries.
2. Record three things that could improve your community, such as a car-free day, buildings that use green technologies or a car-pooling program.
3. Choose one idea and write a letter to your local council or school asking them to consider your idea.

Make your household sustainable

You can make your household more sustainable, and contribute to a more sustainable community, by using resources more efficiently. The table below lists some sustainability aims and ways that you could achieve them.

Sustainability aim	This can be achieved by
Reduce energy use	<ul style="list-style-type: none">• switching off lights and electrical items at the power source• replacing standard light bulbs with energy-efficient light bulbs• encouraging your family to buy power from a green energy provider
Use less water	<ul style="list-style-type: none">• having shorter showers• using water from showers and baths to water gardens or wash cars• encouraging your family to buy a rainwater tank for your house
Reduce waste	<ul style="list-style-type: none">• recycling plastic, metal, paper and glass where possible• putting food waste in a compost bin to be used as fertiliser• wearing clothing handed down from your brothers and sisters
Reduce carbon emissions	<ul style="list-style-type: none">• riding your bicycle or walking instead of being driven• using public transport, such as trains and buses, where possible• sharing car rides with friends where possible



Buying locally grown produce reduces the amount of fuel used to transport food, which helps to make your community more sustainable.