

# 3 The current population of the world

## 1 Distribution and movements

### 1.1 Population distribution

Population is the term used to describe all the people living in a particular area. The distribution of the population in a given space is measured via population density\*, specifically, people per square kilometre.

The territories in the world with the highest population densities are Southeast Asia, Western and central Europe, and the east coast of the US. Areas with **low population densities** include the cold polar regions, high, mountainous areas, deserts, and large equatorial forests.

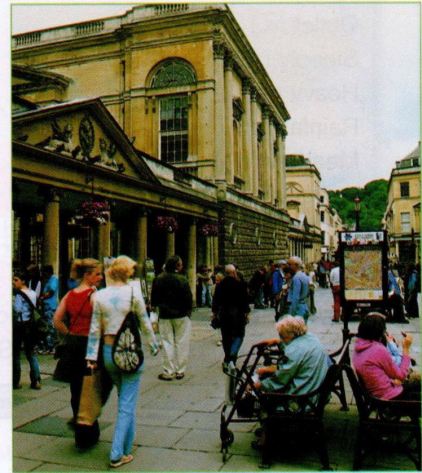
The planet's human population is influenced by **environmental and human factors**. The environmental factors include the relief, the climate and the soil. The principle human factor is the average age of the inhabitants\*.

### 1.2 Natural population movements

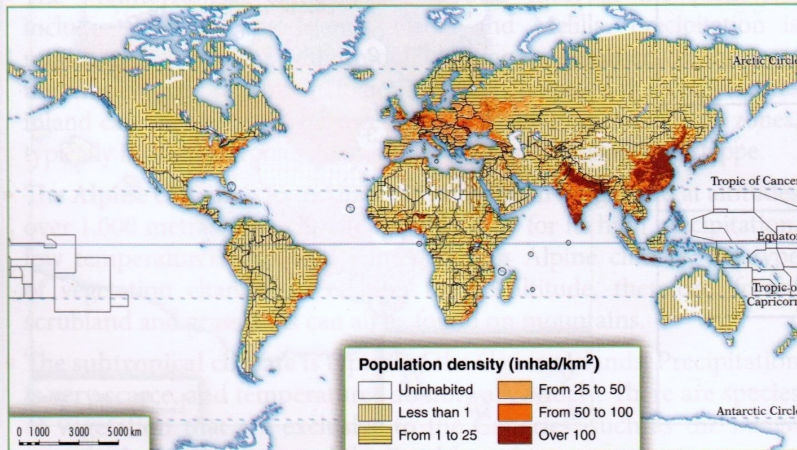
- The **birth rate**\* refers to the number of births in a population over the course of one year. Birth rates and fertility rates are higher in developing countries.
- The **death rate**\* is measured by the number of deaths in a population during one year. It is calculated along with life expectancy. Life expectancy is higher in developed countries.

The variations seen in birth and mortality rates worldwide\* are due to biological, demographic\* and socioeconomic factors.

The **vegetative** or **natural increase** of a population is the difference between the number of people born (the population increases) and the number of deaths (the population decreases).



► Population distribution on Earth is very uneven, there are high-density areas and depopulated areas.



60% of the world's population lives in Asia, on 20% of its land surface.

Almost 10% of the planet's population lives in Europe, on less than 4% of its land surface.

In North and South America, the highest population density is in the northeast of the United States, the southeast of Canada, on the coasts of Río de la Plata, Brazil and in the Andean Highlands.

In Africa the population is denser in some river valleys and on the coastal plains. The rest of the continent has low population density.

Oceania, both Australia and the rest of the islands, has very low population density.

## Practise and progress

### ▼ Using vocabulary

- 1 Learn and make a sentence with each of the following words.

#### Key vocabulary

Density (n.)  
 Inhabitant (n.)  
 Birth rate (n.)  
 Death rate (n.)  
 Worldwide (adj.)  
 Demographic (adj.)

- 2 What does 'vegetative' or 'natural increase' mean?

### ▼ Making associations

- 3 Indicate the areas in the world that tend to have either high or low population densities:

High population density

- a) Southeast Asia  
 b) Deserts  
 c) High mountainous, areas

Low population density

- d) Polar regions  
 e) Western Europe  
 f) Equatorial jungle

- 4 Copy and draw an arrow between the following to indicate the correct association:

- a) Developing countries                      1) Low birth rate  
 b) Developed countries                        2) High birth rate

- 5 Indicate whether the following sentences are true (T) or false (F) in your notebooks:

- a) The birth rate is the number of births in a year.  
 b) The fertility rate is the average number of women per child  
 c) The **death rate** is the number of deaths in one year.  
 d) Life expectancy is the average life span of a person.  
 e) The difference between the birth rate and death rate is the **vegetative** or **natural increase** rate.

### ▼ Problem solving

- 6 Copy and complete. Study the population density formula below and then apply it to the continents listed in the table, so you can calculate the population density of each one:

$$D = \frac{\text{Total population}}{\text{Land area in km}^2} = \text{in hab/km}^2$$

CONTINENTS	POPULATION IN 2009	LAND AREA IN KM <sup>2</sup>	POPULATION DENSITY
AFRICA	999 000 000	30 357 269	
AMERICA	920 000 000	42 216 358	
ASIA	4 117 000 000	45 039 762	
EUROPE	738 000 000	9 850 635	
OCEANIA	36 000 000	8 504 464	

- 7 Copy and complete. Work out the vegetative or natural increase rates of the following three countries, using the difference in age rates.

COUNTRY	BIRTH RATE ‰	MORTALITY RATE ‰	NATURAL GROWTH ‰
ALGERIA	23	4	
MAURITANIA	35	10	
ARGENTINA	18	8	

### ▼ Organising information

- 8 Copy and complete the following table, adding the missing information:

POPULATION			
DISTRIBUTION		FACTORS	
HIGH DENSITY AREAS	DEPOPULATED AREAS	PHYSICAL	HUMAN
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

## 2

# Natural growth and demographic structure

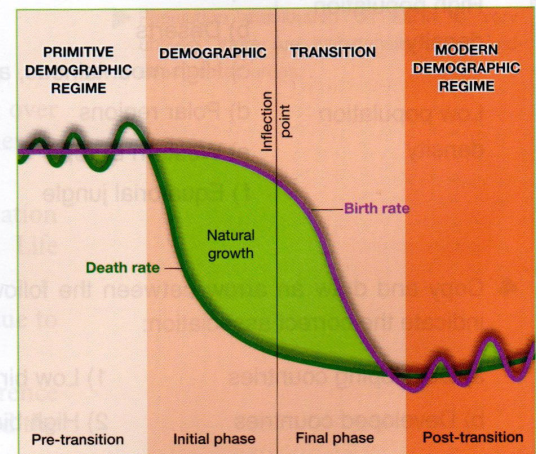
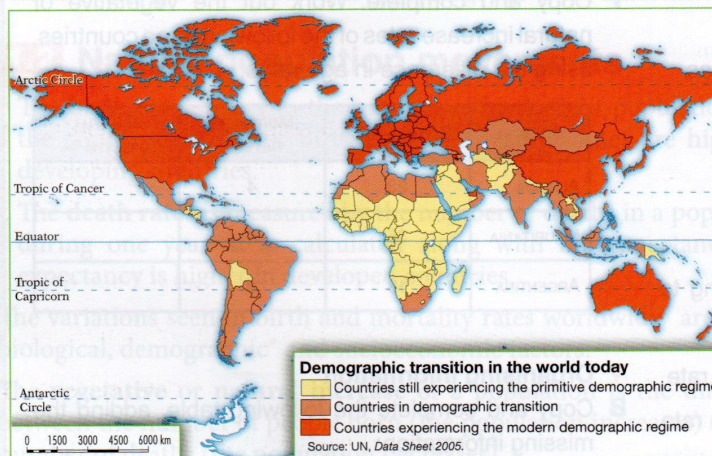
## 2.1 The stages of natural increase

The **natural increase** of the world's population is the difference between the birth rate and the mortality rate. According to the theory of demographic transition, there are three stages to this population growth\*:

- The demographic regime.** At this stage, birth rates are high due to ineffective contraceptive\* methods, but death rates are also high, as a result of malnutrition\*, disease, and poor hygiene\*. Consequently, the natural increase occurs at a slow pace\*.
- Demographic transition.** At this stage, improvements in nutrition, medicine and hygiene cause death rates to fall. As an urban lifestyle\* develops, voluntary birth control becomes more widely used, leading to a drop in the birth rate. Nevertheless, the overall\* result is an increase in natural growth.
- The modern demographic regime.** The birth rate falls sharply and although death rates continue to decline, natural increase is low.



► Today, developed countries are in the modern demographic regime while developing countries are in the demographic transition phase.



## 2.2 Demographic structure

- The **sex structure** examines the number of men relative to the number of women in a population. The ratio of young men predominates because they are born in greater numbers. However, the female ratio increases with age because their life expectancy is usually higher.
- The **age structure** refers to the percentage of young people (0-14 years), adults (15-64 years), and elderly people (65 years and older) in a population. Developing countries tend to have a higher ratio of young people and developed nations typically have ageing\* populations.
- The **economic structure** is the distribution of the population by economic sector. Most of the population in developing countries work in the primary sector, while more than 60% of the population in developed countries form the tertiary\* sector.

► The theory of demographic transition is based on the analysis of changes in the birth and death rate in developed countries.

## Practise and progress

### ▼ Using vocabulary

- 9 Learn and make a sentence with each of the following words.

#### Key vocabulary

Growth (n.)  
 Contraceptive (adj.)  
 Malnutrition (n.)  
 Hygiene (n.)  
 Pace (n.)  
 Lifestyle (n.)  
 Overall (adj.)  
 Ageing (adj.)  
 Tertiary (adj.)

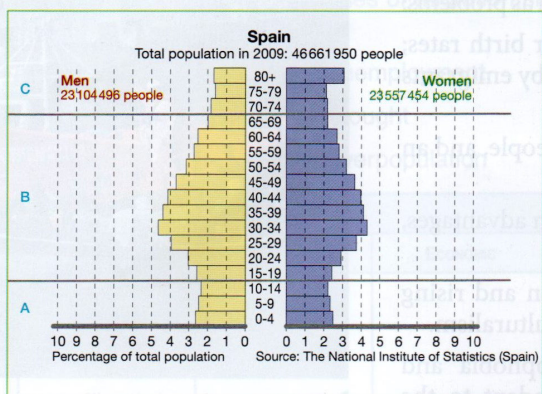
### ▼ Obtaining information

- 10 According to the theory of demographic transition, population growth worldwide has gone through three distinct stages. Summarise the main characteristics of each stage and write them in your notebooks.

- The old demographic regime
- Demographic transition
- The modern demographic regime

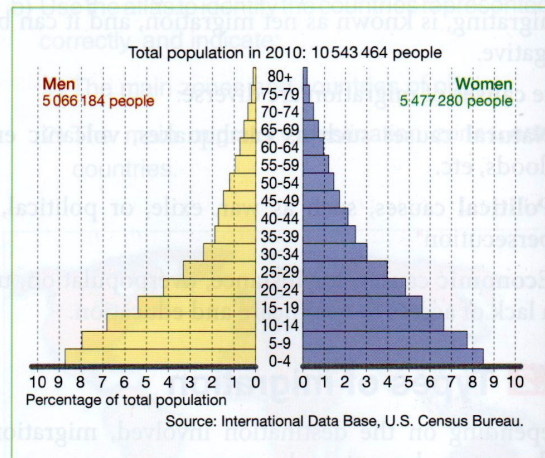
### ▼ Analysing information

- 11 Study the age structure pyramid below, later, answer in your notebook what age group, A, B and C on the left-hand side, corresponds to.



- 12 Now working with the following population pyramid and say:

- What countries could they be referring to?
- What is the age structure like?



### ▼ Organising information

- 13 Copy in your notebook and complete the sentences below about the sex structure of the population using the following words: high; males; young; women; age.

..... predominate in the .....age group because they are born in greater numbers.

The ..... ratio of ..... increases with ..... due to the fact that their life expectancy is usually higher.

### Focus on English: practising making definitions

- To make a definition we usually use the verb 'to be' in the present tense: emigration is the action of leaving a place or country of origin. We can also use other verbs or expressions to make definitions: 'refers to', 'happens when', 'consists of',
- Define the following terms: demographic transition, natural increase, birth date.

# 3

## Migratory movements

### 3.1 Meaning and causes

**Migration** is the movement of people from one area to another. Emigration occurs when people leave their country of origin, and immigration\* describes the arrival of people to a country. The difference between the number of people immigrating and the number of people emigrating, is known as net migration, and it can be either positive or negative.

The **causes** of migration are diverse:

- **Natural** causes such as earthquakes, volcanic eruptions, droughts, floods, etc.
- **Political** causes, such as war, exile, or political, religious or racial persecution\*.
- **Economic** causes, for instance, overpopulation, unemployment, and a lack of access to healthcare and education.

### 3.2 Types of migration

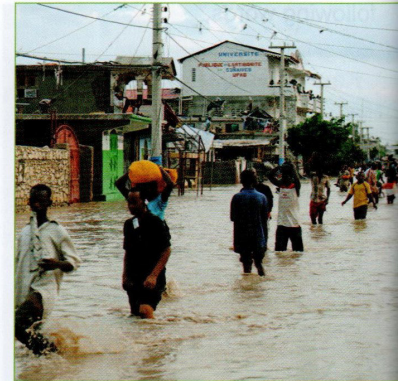
Depending on the destination involved, migration is categorised as either internal or external:

- **Internal migration** takes place within a nation's borders. The most common migration of this type is that of people from rural areas to urban areas, referred to as **rural exodus\***. The consequences of this include the underpopulation of the countryside and the growth of cities.
- **External migration** happens when people travel from their country to another. This kind of migration is currently very widespread\* in poorer countries in Africa, Asia and Latin America, whose inhabitants travel to richer, industrialised countries with more resources.

### 3.3 The consequences of migration

The consequences of migration for the host country, or country of destination, are different to the consequences of migration as experienced by the country of origin.

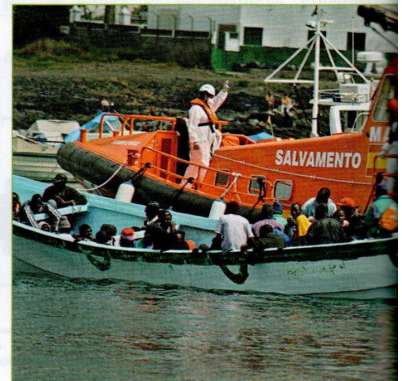
- For the **countries of origin**, migration brings benefits as well as problems:
  - The advantages include a falling population and lower birth rates; lower unemployment; and the remittances\* sent home by emigrants to their families.
  - The disadvantages of migration are the loss of young people, and an ageing society.
- For the **destination countries**, immigration creates certain advantages, as well as some problems:
  - Benefits consist of the rejuvenation\* of the population and rising birth rates; the availability of cheap labour; and multiculturalism.
  - The problems include integration difficulties (xenophobia and racism\*); and the inability of some immigrants to adapt to the destination country.



► Natural disasters provoke large migrations



► The population tries to flee from conflict zones towards safer zones.



► Hopes to gain a better life provoke large population migrations towards rich countries

## Practise and progress

### ▼ Using the vocabulary

- 14** Learn and make a sentence with each of the following words.

#### Key vocabulary

Immigration (n.)  
Persecution (n.)  
Exodus (n.)  
Widespread (adj.)  
Remittance (n.)  
Rejuvenation (n.)  
Racism (n.)

- 15** After reading the sentences below, define the term being described in your notebooks.

- This phenomenon takes place within a nation's borders. It most commonly takes the form of a rural exodus.
- This phenomenon happens when people travel from their country of origin to another country.

### ▼ Making correct associations

- 16** Link each term to the correct definition:

Emigration	The arrival of people.
Immigration	The departure of people.
Net migration	The difference between the number of people emigrating and those immigrating.

- 17** Study the table below and then place the following terms, which describe the causes of migration, in the appropriate column.

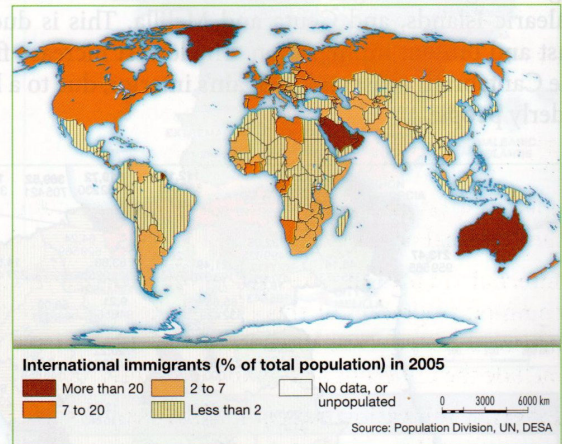
- |                |                   |
|----------------|-------------------|
| a) War         | b) Unemployment   |
| c) Persecution | d) Drought        |
| e) Floods      | f) Overpopulation |

CAUSES OF MIGRATION		
NATURAL	POLITICAL	ECONOMIC

### ▼ Analysing information

- 18** Carefully examine the map below and then answer the following questions in your notebook.

- What type of migration is the map concerned with?
- Use the atlas to identify the countries represented correctly, and indicate:
  - The main zones and countries of origin.
  - The main migratory destination zones and countries.



### ▼ Organising information

- 19** Copy in your notebook and complete the table below about the consequences of migration, by filling in the missing information.

COUNTRY OF ORIGIN		DESTINATION COUNTRY	
ADVANTAGES	DISADVANTAGES	ADVANTAGES	DISADVANTAGES
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-



## Practise and progress

### ▼ Using vocabulary

**20** Learn and make a sentence with each of the following words.

#### Key vocabulary

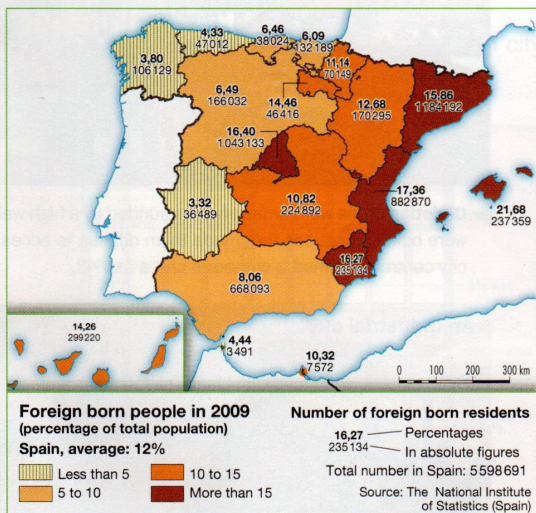
- Uneven (adj.)
- Underpopulated (adj.)
- Emigration (n.)
- Harsh (adj.)
- Emigratory (adj.)
- Relocate (v.)
- Workforce (n.)

**21** Copy in your notebook and insert the following geographical names in the correct column: The Canary Islands; mountainous regions; Madrid; Spain's interior; the Balearic Islands; coastal areas.

HIGH DENSITY AREAS	DEPOPULATED AREAS

### ▼ Analysing information

**22** Study the map below about immigration in Spain, and based on the preceding information, answer the following questions:



a) Which countries or continents do immigrants coming to Spain tend to come from?

b) Identify and name the autonomous communities with the largest proportion of immigrants.

### ▼ Identifying geographical locations

**23** On the map of population density from the last page locate the provinces with the lowest and highest density. If you need to you can refer to the political map below. Finally, copy and complete the tables at the bottom.



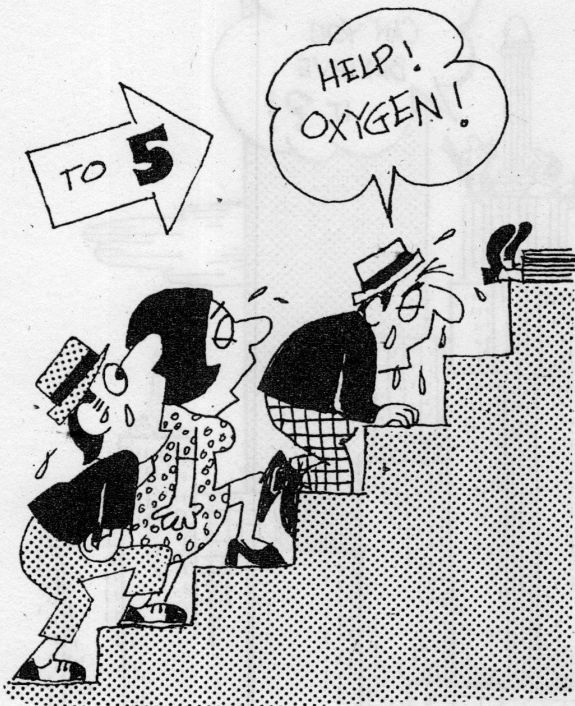
HIGH DENSITY	
BASQUE COUNTRY	
CATALONIA	
SPAIN'S INTERIOR	
OTHERS	

LOW DENSITY	
CASTILLA Y LEÓN	
ARAGÓN	
CASTILLA-LA MANCHA	
OTHERS	



# Buildings That Touch the Sky

Today, the tallest skyscraper is 110 stories high, but the buildings of the future may climb to 400 stories!



Skyscrapers don't really scrape the sky, but some of them are so tall you'd almost think they could. Compared to our majestic buildings today, the first skyscrapers may look pretty puny, but the principles behind their construction laid the groundwork for all the skyscrapers that were to come.

It began in 1883 when Chicago architect Major William Le Baron Jenney was asked to design a fireproof office building with as much light and space inside it as possible. This was a challenge in those

days, when most buildings had thick walls and small windows. Jenney decided to build a box framework of cast-iron columns and steel beams first. This, he rightly believed, would carry the weight of the structure when it was finished and, at the same time, leave enough wall space for large windows.

This skeleton frame was an important development, but without another invention, the skyscraper might never have gotten off the ground. That invention was the elevator. Before the elevator, buildings were built no higher than five stories. After all, who wanted to climb more than five flights of stairs? But with the elevator, people could get to any floor without much physical effort.

So buildings slowly began to get higher. But not everyone was happy about it. In London, for example, a 14-story brick apartment complex called Queen Anne's Mansions was built in the 1880s. Queen Anne was no longer alive to see the building named after her, but Queen Victoria was. And what she saw, she didn't like. She called the tall building an ugly monstrosity and saw to it that laws were passed prohibiting the construction of any more tall buildings.

This, however, was not the case in America, where skyscrapers were catching on, especially in New York City. In 1890, the 26-story World Building climbed to a then-extraordinary height of 375 feet!



Then in 1913, New Yorkers craned their necks to see the top of the 60-story Woolworth Building! This skyscraper had not only its height to admire, but also beautiful spires and ornaments modeled after the Gothic cathedrals of Europe.

Then, the greatest skyscraper of all was started in 1930, right in the heart of Manhattan. It was called the Empire State Building. Passers-by watched in amazement as it went up at the rate of one story a day, until it reached its height of 102 stories, or 1,250 feet. It was the tallest building in the world, and could be seen from 50 miles out at sea. Today, 1,500,000 visitors a year take the elevator up to the observation deck and get a grand view of New York City.

But for all its fame, the Empire State Building has also had its problems. For a number of years, on foggy nights, flocks of high-flying birds were confused by its tower lights and crashed into it. Today, the lights are turned off on foggy nights during the migratory season. A greater disaster occurred in 1945, when a B-25 airplane, lost in fog, struck the building's 79th floor.

Today, the Empire State Building takes a back seat to two newer buildings that have topped its once-gigantic height: the World Trade Center in lower Manhattan and the Sears Tower in Chicago. With its 103 stories and two towers, the World Trade Center is the largest non-governmental office building in the world, with just over 100 acres of rentable space in each tower.

Chicago's Sears Tower, headquarters for Sears, Roebuck, and Company, was finished in 1974 and stands 110 stories high, or 1,454 feet! It houses 16,700 employees, 103 elevators, 18 escalators, and 16,000 windows!



How high can these skyscrapers go? Experts claim the sky is the limit — or almost. With a new suspend-arch principle, they say that skyscrapers of the future could rise up to 400 stories. That's over 3,000 feet high!

The very thought of this might cause you to say what some people said as they watched the Empire State Building go up back in 1930: "How dare they build anything that high!"

#### READING QUESTIONS

- What two developments were necessary to build sky scrapers?
- What did Queen Victoria order after she saw her mother's Mansions?
- What happened in the Empire State Building in 1945? Why?

# VOCABULARY

## *UNIT 3*

- Current
- Population
- To measure
- Population density
- Per square kilometre
- Environmental
- Soil
- Inhabitant
- Birth rate
- To refer to
- Over the course of one year
- Fertility
- Developing countries
- Death rate
- Life expectancy
- Worldwide
- To be due to
- Increase / Decrease
- Mortality
- Growth
- Stage
- Contraceptive methods
- Disease
- Hygiene
- Pace
- Lifestyle
- Nevertheless
- Overall
- Sharply
- Percentage
- Elderly people
- To tend
- Ageing population
- Net migration
- Flood
- Exile
- Racial persecution
- Overpopulation
- Unemployment
- Lack of
- Healthcare
- To take place
- Rural exodus
- Under population
- Countryside
- Widespread
- Industrialized
- Resource
- Host
- Benefit
- Advantage
- Remittance
- Loss
- Availability
- Cheap labor
- Uneven
- To attract
- To be involved
- Harsh
- Living conditions
- Figure
- Proportion
- To be focused on
- Spaniard
- To relocate to
- Dynamic
- Work force