

# 16 Environment

Word	Definition	Example	Translation
<b>accountability</b> /əˈkaʊntəˈbɪləti/	a position where people have the right to criticize you or ask you why something happened. <b>noun [uncount]</b>	<i>the accountability of the government to the public</i>	
<b>acid rain</b> /ˈæsɪd ˈreɪn/	rain that contains a high level of acid that can damage the environment. The acid forms when harmful gases from industry and vehicles mix with water in the atmosphere. <b>noun [uncount]</b>		
<b>acidic</b> /əˈsɪdɪk/	containing acid (=a chemical substance with a pH value of less than 7). <b>adjective</b>	<i>acidic soil</i>	
<b>acidify</b> /əˈsɪdɪˈfaɪ/	to become an acid, or cause a substance to become an acid. <b>verb [intransitive/transitive]</b>		
<b>affect</b> /əˈfekt/	to change or influence something. If something affects something else, it has an effect on it. <b>verb [intransitive]</b>	<i>Did the newspapers really affect the outcome of the election?</i>	
<b>afforestation</b> /əˈfɒrɪˈsteɪʃ(ə)n/	the process of planting many trees on an area of land. <b>noun [uncount]</b>		
<b>alkaline</b> /ˈælkəˌlaɪn/	containing an alkali or consisting of an alkali (=a chemical substance with a pH value of more than 7). <b>adjective</b>		
<b>asthma</b> /ˈæsmə/	a medical condition that makes it difficult to breathe. <b>noun [uncount]</b>	<i>Her grandmother suffered from asthma.</i>	
<b>atmosphere</b> /ˈætməˌsfɪə(r)/	the air round the Earth or round another planet. <b>noun [count]</b>	<i>Saturn's moon, Titan, has an atmosphere mainly made of nitrogen.</i>	
<b>biodegradable</b> /ˌbaɪəʊdɪˈɡreɪdəb(ə)l/	decaying naturally in a way that is not harmful to the environment. <b>adjective</b>		
<b>biodiversity</b> /ˌbaɪəʊdaɪˈvɜː(r)səti/	the variety of types of living thing in a particular region. <b>noun [uncount]</b>		
<b>biomass</b> /ˌbaɪəʊˌmæs/	plant and animal substances used for fuel. Biomass fuels produce less carbon dioxide than fossil fuels such as coal and oil. <b>noun [uncount]</b>		
<b>biome</b> /ˌbaɪəʊm/	a region that is classified by its climate and the types of animals and plants that are living in it. The rainforest and the tundra are biomes. <b>noun [count]</b>		
<b>biosphere</b> /ˌbaɪəʊˌsfɪə(r)/	the parts of the Earth's surface and atmosphere where living things can exist. <b>noun [singular]</b>		
<b>breathe</b> /briːð/	to take air into your lungs through your nose or mouth and let it out again. <b>verb [intransitive/transitive]</b>	<i>He held her so tightly she could hardly breathe.</i>	
<b>bronchitis</b> /brɒŋˈkæɪtɪs/	an illness affecting your bronchial tubes in which you cough and find breathing difficult. <b>noun [count]</b>		
<b>burn</b> /ˈbɜː(r)n/	to damage or destroy something with fire. <b>verb [transitive]</b>		
<b>cancer</b> /ˈkænsə(r)/	a serious illness caused by a group of cells in the body increasing in an uncontrolled way. <b>noun [count/uncount]</b>	<i>Some cancers are easier to treat than others.</i>	
<b>canopy</b> /ˈkænəpi/	the highest leaves and branches in a forest. <b>noun [singular]</b>		
<b>carbon dioxide</b> /ˈkɑː(r)bən daɪˈbɒksaɪd/	gas without colour or smell, produced when you breathe out or when substances containing carbon are burnt. <b>noun [uncount]</b>		
<b>carbon emissions</b> /ˈkɑː(r)bən ˈrɪmj(ə)nɪs/	carbon dioxide and carbon monoxide that vehicles and factories produce and send into the atmosphere. <b>noun [plural]</b>		
<b>catalytic converter</b> /ˈkætəlɪtɪk kənˈvɜːtə(r)/	a piece of equipment fitted to a car that reduces the amount of poisonous gases that it sends into the air. <b>noun [count]</b>		

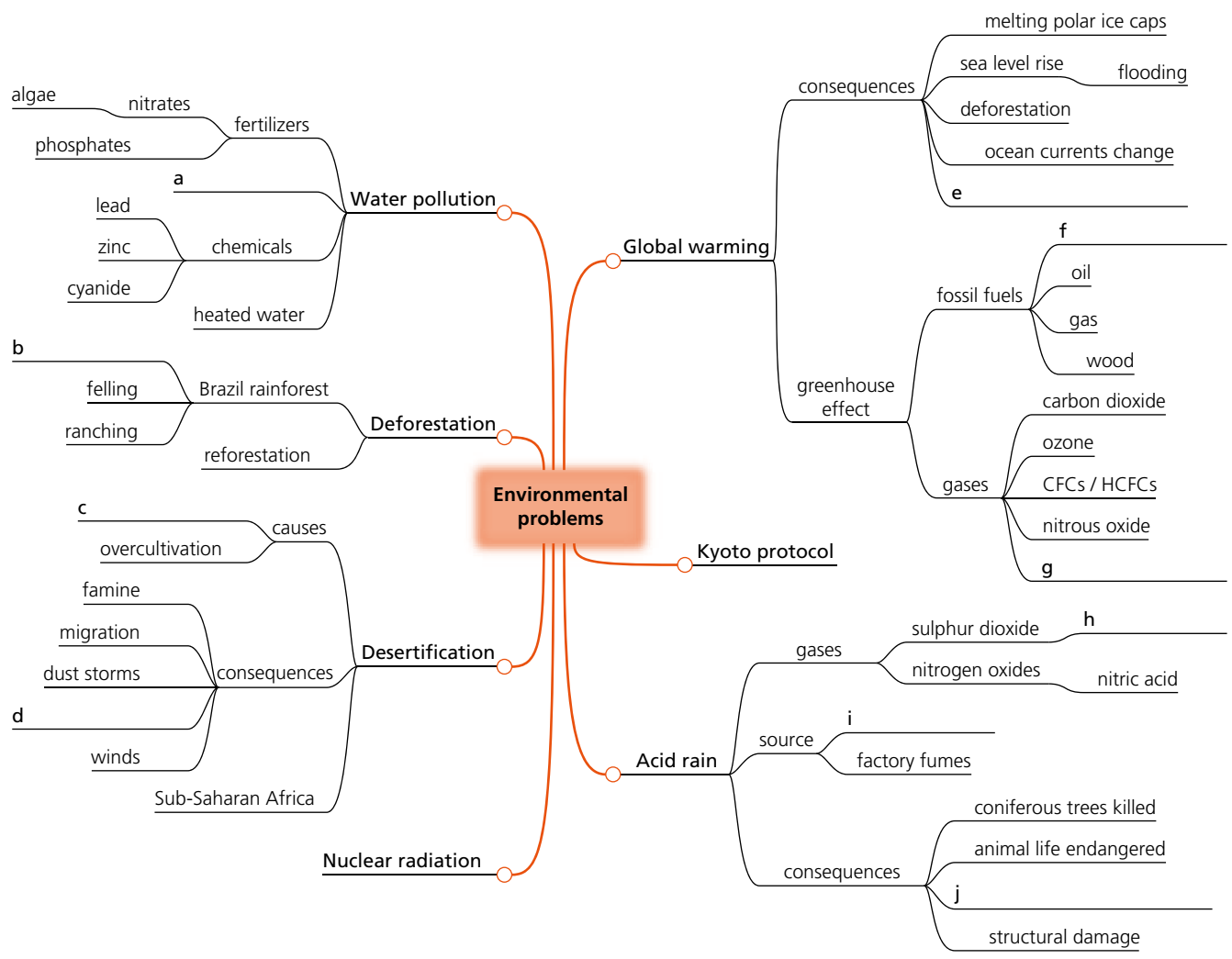
Word	Definition	Example	Translation
<b>causal</b> /'kɔ:z(ə)l/	if there is a causal connection or relationship between two events, one event causes the other. <b>adjective</b>	<i>They long ago established a causal link between smoking and lung cancer.</i>	
<b>cause</b> /'kɔ:z/	an event, thing, or person that makes something happen. <b>noun [count]</b>	<i>The major cause of these accidents is drivers going too fast.</i>	
<b>cfc</b> /'si: ef 'si:/	chlorofluorocarbon: a gas used in refrigerators and in some aerosols. cfc's can damage the ozone layer of the Earth's atmosphere. <b>noun [count]</b>		
<b>chemical dumping</b> /'kemɪk(ə)l 'dʌmpɪŋ/	the process of getting rid of used or waste chemicals in a particular area, or the illegal activity involved in this process. <b>noun [uncount]</b>		
<b>climate change</b> /'klaɪmət 'tʃeɪndʒ/	important and possibly harmful changes that some scientists believe are taking place in the world's weather because of increased pollution in the atmosphere. <b>noun [uncount]</b>		
<b>coal</b> /'kəʊl/	a hard black substance that is dug from the ground and burned as fuel to provide heat. <b>noun [uncount]</b>	<i>Put some more coal on the fire.</i>	
<b>concentrated</b> /'kɒns(ə)n,treɪtɪd/	concentrated liquids or substances have been made stronger by having water removed. <b>adjective</b>	<i>concentrated fruit juice</i>	
<b>consequence</b> /'kɒnsɪkwəns/	a result or effect of something. <b>noun [count]</b>	<i>She said exactly what she felt, without fear of the consequences.</i>	
<b>conservation</b> /'kɒnsə(r)'veɪʃ(ə)n/	the management of land and water in ways that prevent them from being damaged or destroyed. <b>noun [uncount]</b>	<i>a wildlife conservation project</i>	
<b>conservationist</b> /'kɒnsə(r)'veɪʃ(ə)nɪst/	someone who works to protect the environment from damage or destruction. <b>noun [count]</b>		
<b>controversy</b> /'kɒntrəvɜ:(r)si/	a disagreement, especially about a public policy or a moral issue that a lot of people have strong feelings about. <b>noun [count/uncount]</b>	<i>The election ended in controversy, with allegations of widespread vote-rigging.</i>	
<b>contaminated</b> /'kɒn'tæmɪneɪtɪd/	made dirty, polluted, or poisonous by the addition of a chemical, waste, or infection. <b>adjective</b>	<i>contaminated food/water/blood</i>	
<b>critic</b> /'krɪtɪk/	someone who does not like something and states their opinion about it. <b>noun [count]</b>	<i>Critics say the plan is short-sighted and dangerous.</i>	
<b>cyanide</b> /'saɪənaɪd/	a very poisonous chemical. <b>noun [uncount]</b>		
<b>damage</b> /'dæmɪdʒ/	physical harm caused to something so that it is broken, spoiled, or injured. <b>noun [uncount]</b>	<i>Mr Charlton surveyed the damage caused by the bulldozer.</i>	
<b>dangerous</b> /'deɪndʒərəs/	likely to harm or kill someone, or to damage or destroy something. <b>adjective</b>	<i>a dangerous dog</i>	
<b>deadly</b> /'dedli/	able or likely to kill people. <b>adjective</b>	<i>This is a potentially deadly disease.</i>	
<b>debate</b> /'deɪbeɪt/	a discussion in which people or groups state different opinions about a subject. <b>noun [count/uncount]</b>	<i>There has been intense debate over political union.</i>	
<b>decommission</b> /'di:kə'mɪʃ(ə)n/	to stop using something such as a weapon, ship, or nuclear power station. <b>verb [transitive]</b>		
<b>deforestation</b> /'di:frɪ'steɪʃ(ə)n/	the process of cutting down and removing trees, especially from large areas of land. Deforestation is bad for the environment, as there are fewer trees to take in carbon dioxide and this can lead to an increase in global warming. It also involves the destruction of habitats and can cause soil erosion. <b>noun [uncount]</b>		
<b>degradation</b> /'degrə'deɪʃ(ə)n/	the process by which the land or the environment becomes damaged or polluted. <b>noun [uncount]</b>	<i>environmental degradation</i>	
<b>desertification</b> /'dɪzɜ:(r)'tʃɪ'keɪʃ(ə)n/	the process of land becoming so dry that it cannot be used for farming. This is often the result of human activities such as overgrazing and deforestation. <b>noun [uncount]</b>		
<b>destroy</b> /'dɪ'strɔɪ/	to damage something so severely that it no longer exists or can never return to its normal state. <b>verb [transitive]</b>	<i>Half the world's rainforests have already been destroyed.</i>	
<b>devastate</b> /'devə'steɪt/	to seriously damage or completely destroy something. <b>verb [transitive]</b>	<i>Western India was devastated by a huge earthquake.</i>	

**A Working with words**

**1 Environment word map**

Write these words in the correct place on the word map.

drought exhaust fumes lakes poisoned logging climate change  
 coal methane overgrazing pesticides sulphuric acid



**2 Water pollution**

Underline the correct word in each sentence.

- Water bodies, such as rivers and lakes, are important parts of our (biomes / ozones).
- The water itself provides fish and other animals with their (habitats / habits).
- Water biomes may be damaged in a number of ways by industrial (population / pollution).
- Some industrial plants, such as thermal power stations, use water for (heating purposes / cooling purposes).
- This water becomes heated in the process and may then be released back into rivers or (lakes / pools).
- Cool water is a better habitat than warm water because it contains more (oxygen / carbon dioxide).
- Heated water is therefore a pollutant in that it may result in the (suffocation / application) of animals.
- Poisonous industrial chemicals may sometimes seep into rivers, lakes or (groundwater / seawater).
- Chemicals gradually accumulate in the water until animal and plant life dies from (burning / poisoning).
- Industrial pollution has been reduced in some countries with stricter anti-pollution (regulations / relegations).
- Some industries still try to cut costs by illegal chemical (dumping / pumping).

## 6 Global impacts

Match the beginnings and endings of the sentences.

### Beginnings

- 1 Global warming is caused by
- 2 The burning of fossil fuels is
- 3 Trees convert carbon dioxide into oxygen
- 4 Rainforest clearing decreases the amount of oxygen
- 5 The burning of trees during deforestation
- 6 A result of global warming may be
- 7 Such a rise would flood many low-lying parts of the world

### Endings

- a the main cause of the build-up of greenhouse gases.
- b a rise in sea level by up to 60cm during this century.
- c adds to the build-up of carbon dioxide.
- d and this is why equatorial forests have been described as 'the lungs of the world'.
- e such as Bangladesh and the south-east coast of the USA.
- f the gradual build-up in our atmosphere of carbon dioxide and other 'greenhouse gases'.
- g and increases the amount of carbon dioxide in the atmosphere.

1  2  3  4  5  6  7

## C Working with texts

### 7 The greenhouse effect

Read the text and make notes on the causes, effects and solutions for the greenhouse effect.

We contribute to the greenhouse effect in many ways. People burn fossil fuels, such as coal, gas and oil and wood. This produces huge amounts of carbon dioxide which traps heat, much like a blanket, in the upper atmosphere. Additionally, large increases in animal numbers in order to feed the world's population is producing excess methane gas which is also trapping heat. Cutting down tropical forests also adds to the problem. Trees absorb carbon dioxide which people and animals produce. Trees also 'breathe out' oxygen which all living things need. These processes are vital for a balanced existence. However, people are cutting down vast areas of tropical forests, and so upset this balance.

On top of all this, the increase in temperature of the Earth's atmosphere is causing the climate in some areas to change. This is especially true in areas which normally receive little but vital rainfall. When this rain does not fall, it causes drought, crop failure and famine. Another problem is the melting of the ice caps which creates a rise in sea levels. This rise may cause some island nations in the South Pacific Ocean to disappear. There is also increased rainfall and flooding in some areas, such as in Bangladesh and Mozambique, leading to destruction and death. One solution is to reduce the burning of fossil fuels and use other sources such as solar, wind and wave energy. Planting more trees would also help increase the oxygen supply.

A Causes	B Effects	C Solutions
1	1	1
2	2	2
3	3	3

## 8 Negative effects of acid rain

Read the text and sort the paragraphs into the correct places in the table.

- a Acid fog can directly damage human health. In times of such fog, people may breathe in tiny droplets of nitric or sulphuric acid. Such acids are believed to result in illnesses such as asthma.
- b Acid rain releases minerals that damage plant roots. These two processes reduce crop yields and farm incomes.
- c Acid rain results in heavy leaching, which deprives tree roots of the nutrients they need. The trees then become 'malnourished' and are more likely to be killed by diseases or parasites.
- d The acidification of groundwater in Sweden has been linked to foul-tasting water, children's diarrhoea and even to people's hair turning green after washing.
- e Many angling lakes have been rendered lifeless by acid rain, which destroys the food chain that fish need to survive. Thousands of lakes in Norway and Sweden have been thus affected.
- f Minerals and nutrients are leached or washed out of the topsoil, reducing the soil's fertility.
- g Chemicals in acid rain also weaken the ability of trees to tolerate cold. This results in the death of many conifers in Northern Europe. It is estimated that more than half of Germany's evergreen trees have now been damaged by acid rain.
- h The surfaces of old buildings flake away as they undergo severe chemical weathering by acid rain. It is estimated that famous 'tourist trap' buildings such as the Coliseum in Rome have suffered more acid rain damage in the past 30 years than they did in the previous 2,000.

1 Impact on agriculture	
2 Impact on forestry	
3 Impact on leisure activities and tourism	
4 Impact on the quality of life	