



**Otázka:** Environment and Ecology

**Jazyk:** Angličtina

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### What is environment?

Environment includes plants, animals, air, water, our civilization etc. We could say that it is everything what is around us. Environment is influenced by processes in nature, but mainly by activity of people.

### We can talk about several problems

- **Acid rains-** rain, which contains large amounts of chemicals as a result of burning substances such as coal and oil. (The acid rains are because of factories, because they produce bad gases.)
- **Ozone layer-** It is a layer of air high above the Earth, which contains a lot of ozone, and which prevents harmful ultraviolet light from the sun from reaching the Earth.
- Both of these facts are caused by factories and pollution.
- **Biodegradable-** able to decay naturally and harmlessly. Biodegradable packaging helps to limit the amount of harmful chemicals released into the atmosphere.
- **Biodiversity-** the number and variety of plant and animal species that exist in a particular environmental area or in the world generally, or the problem of preserving and protecting this.
- **Carbon dioxide-** the gas formed when carbon is burned, or when people or animals breathe out.
- **Climate-** the general weather conditions usually found in a particular place.
- **Climate change-** there has been a growing concern about climate change.



- **Deforestation-** the cutting down of trees in a large area- the destruction of forest by people.
- **Desertification-** The process by which land changes into desert.
- **Disposable products-** describes an item that is intended to be thrown away after use.
- **Drought-** a long period when there is little or no rain.
- **Earthquake-** a sudden violent movement of the Earth's surface, sometimes causing great damage.
- **Endangered species-** endangered birds, plants, species animals or plants which may soon not exist because there are very few now alive
- **Energy-** the power from something such as electricity or oil, which can do work, such as providing light and heat. There are different types of energy – solar, nuclear, hydroelectric
- **Environment-** the air, water and land in or on which people, animals and plants live.
- **Extinction-** many species of plants and animals are in danger of/threatened with extinction (being destroyed so that they no longer exist)
- **Flood-** a large amount of water covering an area which is usually dry
- **Fumes-** strong, unpleasant and sometimes dangerous gas or smoke. Petrol fumes always make me feel ill.
- **Natural resources-** things such as minerals, forests, coal...which exist in a place and can be used by people. Some natural resources, such as natural gas and fossil fuel, cannot be replaced
- **Global warming-** a gradual increase in world temperatures caused by polluting gases such as carbon dioxide which are collecting in the air around the Earth and preventing heat escaping into space
- **Greenhouse effect-** an increase in the amount of carbon dioxide and other gases in the atmosphere which is believed to be the cause of gradual warming of the surface of the Earth.
- **Renewable energy-** describes a form of energy that can be produced as quickly as it is used. Renewable energy sources such as wind and wave power
- **Oil slick-** a layer of oil that is floating over a large area of the surface of the sea, usually because an accident has caused it to escape from a ship or container
- **Overpopulation-** more people need more food, space, water
- **Pollution-** damage caused to water, air...by harmful substances or waste
- **Recycle waste-** to collect and treat rubbish to produce useful materials which can be used again.
- **Sustainable development-** a development that is causing little or no damage to the environment and therefore able to continue for a long time. A large



international meeting was held with the aim of promoting sustainable development in all countries

- **Tsunami**- an extremely large wave caused by movement of the Earth under the sea, often caused by an earthquake
- **Unleaded petrol**- describes a type of petrol or other substances that does not contain lead
- **Use a natural resource**- the degradation of natural resources because of human pressure
- **Volcano**- a mountain with a large circular hole at the top through which lava (hot liquid rock), gases, steam and dust are of have been forced out
- **Waste**- unwanted matter of material of any type, often that which is left after useful substances or parts have been removed (other related vocabulary- rubbish, garbage, trash)

## PROBLEMS THAT I FIND THE WORST

### Air pollution and acid rain

I think, that everyone of us has some experience with the air pollution, because many towns in our country have polluted air. The air is polluted mainly by cars and factories. The polluted air is bad to breathe and it can make you sick. It can cause many illnesses particularly among small children and old people. But air pollution is also bad for plants and animals. It can poison trees and crops and even kill the whole forest.

The rain which is polluted is called,, acid rain", but pollutants pollute snow, hail and even fog too. How does the rain become acid? The problem comes mainly from burning of fossil fuels, exhaust fumes from cars and smoke from factories. The worst thing is the acid rain doesn't often fall on the places which produce it. The wind carries it from one place to another.

What can we do? We should avoid using for example sprays, factories should use filters etc...

### Greenhouse effect and global warming

The Earth is surrounded by the atmosphere. The atmosphere lets the heat from the sun reach the ground and then it prevents some of it from escaping back into the space. The problem is



we create gases that pollute the atmosphere and that's why it keeps too much heat and the Earth becomes hotter.

Global warming- A gradual increase in world temperatures caused by polluting gases such as carbon dioxide which are collecting in the air around the Earth and preventing heat escaping into space.

### **What could happen in the future?**

- The ice around the North Pole and the South Pole could melt.
- The melted ice could cause the sea levels to rise.
- Places near the sea level could be flooded.
- Some places could become too hot to live.
- Many farmer's crops could no longer grow

### **Ozone layer, holes in ozone layer**

(It is a layer of air high above the Earth, which contains a lot of ozone, and which prevents harmful ultraviolet light from the sun from reaching the Earth.) Ozone is a form of oxygen. The ozone layer above the Earth is a shield that protects us against ultraviolet light from the sun. High UV light can cause skin cancer or affect the growth of plants.

### **Too much trash**

About 80% of the garbage ends up in dumps. About 10% is recycled and 10% is incinerated. But we are running out of space- most of the dumps will be soon full. Big problem is rubbish in the forest, or in the ocean. The big problem is garbage and chemicals in forests and oceans. Because if the garbage gets into the body of the animals that you then eat, the chemicals and harmful substances get into our bodies.

### **Endangered species**

Many species around the world are endangered, mostly due to human activities, such as



building roads and cities. Some are endangered, because we consider them valuable or attractive. For example, elephants are killed for their tusks, whales for the oil and meat, seals for their fur...

We also cut down rainforest, mostly to create farmland, fields, but they are very important, because they provide home for many other plants and animals. And the most important thing is the rainforests produce the oxygen which we breathe.

Amazon rainforest burns- It caused by farmers. They want field for their growing crops. It's big problem because native people live there and they're losing their home.

### **What I personally do**

I recycle. We have at home special trash bins for paper, plastic, glass and battery. I think recycling waste is very important. The worst thing people can say: One person doesn't help. If another million people says something like that, the change won't really happen. It is important to start with yourself. We bought a cotton bag. So when I go to the shop, I put vegetables and fruits into a cotton bags. I love shopping in second-hand, you can find there really original pieces.

### **Environmental organizations**

- Organizations that help the environment
  - Greenpeace
  - Friends of the Earth
- Organizations that help against pollution
  - Ocean Conservancy
  - Greenpeace

### **3 „R”**

3 „R” can help us to be more environmentally friendly.



- **RECYCLE**– we can recycle paper, plastic, aluminium, glass, battery. We can use a special trash bins. Almost everything that you buy can be recycled. Try to avoid products that don't have a recycle symbol on the package. Or you can purchase items made from recycled materials.
- **REFUSE** – Say no to plastic bags! We can buy one cotton bag and use it repeatedly. I can buy cotton bags for vegetables and fruits, instead of using plastic bags or visit shops without packaging. Another idea, how to help, is shopping in second hands. By buying used products, you will help reduce the demand for new materials to be created. You will also save money. Check local thrift shops, used furniture...
- **REDUCE**– Not to waste water. Eat less meat. I've read an article about vegans. There was written, that one vegan can save 300 cows per year. I think that this is incredible, because cows are one of the reasons of global warming. Reduce mindless shopping clothes, you don't need 5 same T-shirts. Choose items with minimal packaging.

Nowadays there is a big trend to use for example tooth brush from bamboo, „no poo” method, using not animal testing makeup...

### How do we stop pollution?

#### Making sustainable transportation choices

- Reduce the number of trips you take in your car. Walk or ride your bike whenever possible. One of the best things you can do to help stop pollution is to stop using your car for short trips. If the weather is nice and you don't have too far to go, consider walking or riding your bike. You will help reduce air pollution and you will get some exercise and fresh air in the process
- Use public transportation. Riding the bus, train or subway is another great way to avoid using your personal vehicle and reduce carbon emissions. If you have access to good public transportation where you live, take advantage of it. Since you won't have to worry about keeping your eyes on the road, you can take advantage of time to read, catch up on news or just relax.

#### Making sustainable food choices



- Choose a local food whenever possible. Transporting food across the country and around the world requires a considerable amount of fuel. This excessive fuel contributes to air pollution. Instead of purchasing food that has traveled thousand of miles to get to your table, choose food that comes from nearby farms.
- Reduce or eliminate eating animal products

### **Making sustainable energy choices**

- Turn off lights and electronics when you are not in the room. You can also unplug them for ever more energy savings.
- You may be able to purchase energy sources from wind, solar panels, water

### **Problems in České Budějovice**

- I think the biggest problem in České Budějovice is air pollution. This is mainly due to the number of cars that stand at the traffic light. If it is a hot summer day, some people can breathe much worse. Another problem is also light pollution. I live in a village where there is no pollution and I love to watch the stars at night, but in the city it's impossible. And mainly because of the amount of lights.

### **Global problems**

#### **Human rights**

- Human rights are basic “privileges” that everyone should receive. Not being discriminated because of your race, gender or religion, and living free from torture are a few basic human rights. Primarily Muslim countries like Iran are often accused of not granting rights to women and countries with an indigenous population like Australia often have conflicts over the rights of the natives versus non-natives. Countries that have problems with human rights include North Korea, Sudan and China.

#### **Poverty**

- Poverty is a worldwide problem that is the result of, and produces, many other



problems. Countries with a poor educational system often have poorer residents. People living in poverty often commit crimes to support themselves or their families, which leads to unsafe cities. Poor people don't often have enough to eat, which leads to malnutrition (getting sick from not eating the right types of food) and starvation and **famine**. Poor countries also may not have a good **health care system**, which leads to a population that is ill and has many diseases. We see these problems in many African countries like Chad and Nigeria, as well as in Central American.

### Wars

- Conflicts are happening around the world. We are all familiar with the problems in Afghanistan and Iraq. Fighting between the government and militias is occurring in Somalia and innocent civilians are being killed in the fighting or are forced to leave their homes for safer areas. The area of the Middle East is constantly troubled by the long-term Israeli-Palestinian conflict. There are different reasons for war: sometimes two groups are fighting for control of a country and sometimes their dispute is based on their religions. We've seen a rise in **terrorist acts** committed by people who believe they are defending their religion. The attacks in the US in September 2001 and in Paris in November 2015 are two examples – but people in Indonesia, Spain, Israel and the Palestinian territories also have suffered from terrorism.

### Economic uncertainty

- A worldwide **economic crisis** first hit back in 2008. After a year of slight economic improvement, the world now nervously watches the euro in crisis. Germany and France have taken up leadership roles in the hope of saving the currency. A debt crisis in Greece, Ireland and Portugal and potential problems in Spain, Italy and Hungary are affecting countries across Europe. Emergency meetings are being held and agreements are being written. However, it will be difficult to get all the EU countries to agree on **financial reform**.

### Natural disasters

- Natural disasters are extreme, sudden events caused by environmental factors that injure people and damage property: avalanches, earthquakes, floods, hurricanes, lightning, tornadoes, tsunamis, volcanoes, wildfires, drought, extreme heat





### Consumerism

- An inclination to buy 'stuff' is called consumerism. Many people believe excessive consumerism promotes a 'throwaway' society, where things are only used once, or are in fashion for a short time. They believe this contributes to the earth's environmental problems. Other people believe that consumerism is necessary to keep the economy working. Over-production, processing, and the consumption of goods leads to excessive **exploitation of natural resources** (e.g. wood, fossil fuels, water), **environmental degradation** (e.g. the deforestation of the Amazon rainforest) and creation of toxic by products from factories, while the use of products themselves (e.g. cars) creates pollutants and immense **production of waste**.

### Population growth

- In October 2011 it was reported that the seven billionth person was born. Our planet is already struggling to support the people who live here now. How will we be able to feed, clothe and house even more people? About 10,000 people are born every hour! All these people put pressure on the earth's natural resources and they also produce waste. However, experts believe that the problem is not a lack of food, but how it is distributed across the globe.

### Migration

- In 2015, 244 million people, or 3.3 per cent of the world's population, lived outside their country of origin. The majority of migrant's cross borders in search of better economic and social opportunities. Others are forced to **flee crises** – the current mass movement of refugees and displaced persons has given rise to xenophobia and calls for **tightening borders**. Internal migration within countries is also on the rise.

### Question

- What kind of weather do you like the most/least?
- What was the weather like yesterday?
- What is your favourite winter activity?
- What does the typical weather in autumn look like in the Czech Republic?



- Do you depend on weather reports/forecasts on TV/on the internet?
- Which season would you like to cross out from/leave out of the calendar?
- Have you noticed changes in the weather as a result of climate change?
- What do you think the climate will be like in a hundred years' time?
- What problems can weather cause?
- What kind of climate would you ideally live in?

**Now, tell me about your least favourite season of the year.**

- What season is it, and why don't you like it?
- What type of weather would you prefer instead during this part of the year? Why?
- What activities do you like doing at this time of the year?