

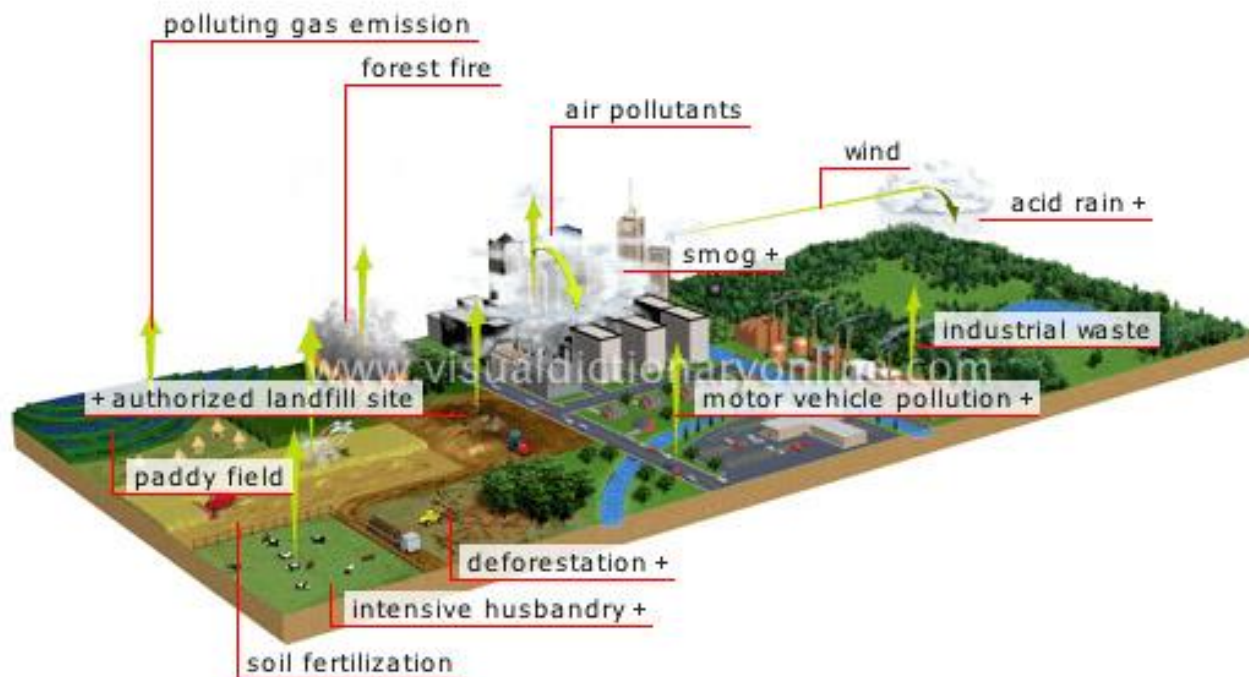
Air pollution

David Souček, Krištof-Filip Janouškovec, Karel Kubíček

Introduction

- Air pollution is a global problem
- It is mostly caused by factories and cars
- It is dangerous for all organisms on our planet
- It gives rise to lots of other global problems, for example – global warming, greenhouse effect, iceberg melting, a hole in the ozone layer, acid rain

Air pollution



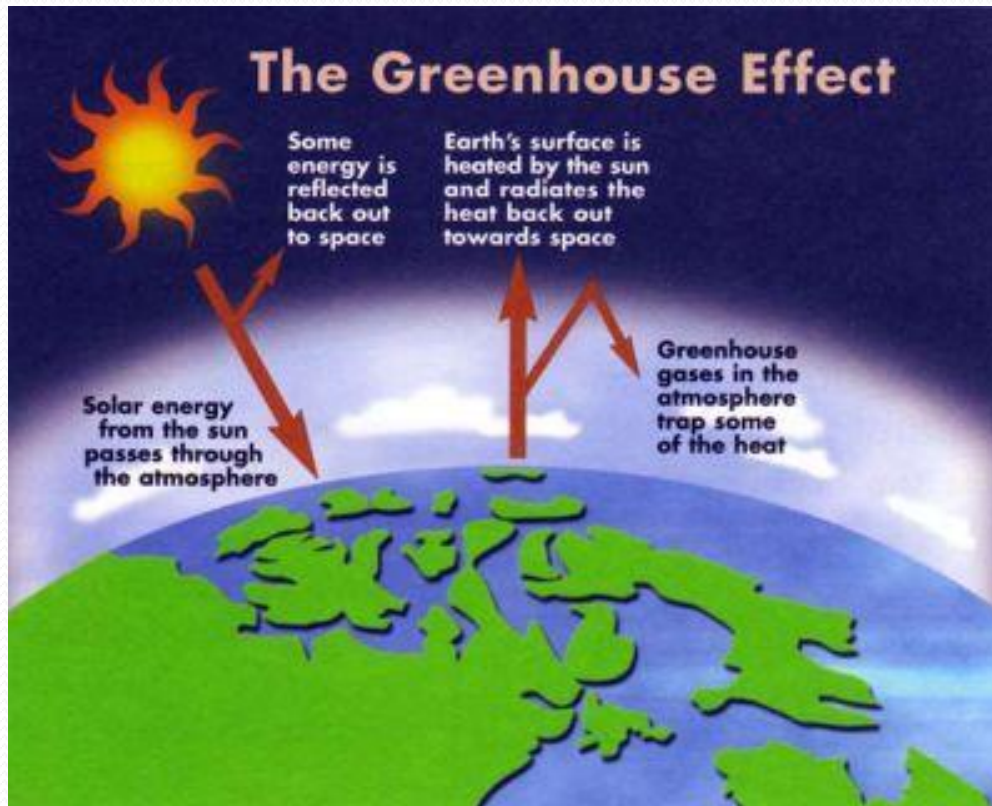
Global warming

- Global warming is connected with greenhouse effect and cumulation of greenhouse gases
- It is indicated by increase of an average temperature of the Earth's atmosphere and oceans
- Global warming results from human society, the combustion of fossil fuels
- It was said that there does exist the connection between global warming and natural catastrophes

Global warming



Greenhaus effect



Greenhaus effect

- It is an effect during which greenhouse gases are cumulating in the Earth atmosphere
- These gases cause warming of the entire planet by easy transmitting of solar radiation.
- Thermal radiation with larger wave length coming back from the planet surface is absorbed and prevents from immediate outflow to space.

Czech Republic and global warming

- In regard to air polluting in the EU states - the Czech Republic takes an average place.
- Main areas of pollution – Ostravsko and Ústecko.
- Among the most significant sources of pollution belong fossil fuel power plants and cars.
- Fossil fuel power plants represent high number in the Czech Republic.
- The main source of pollution in Prague is transportation.
- Emission level and air pollution in the CR was slightly improved from 1997 to 2005.

Prague

- Prague is a very polluted place – the level of pollution reaches 4 degree.
- Pollution is mainly caused by transportation, heavy traffic and high concentration of industry in the city.
- There is the plan how automobile transportation and heavy traffic can be reduced in Prague and how the quality of air can be improved.

Pilsen

- The region of Pilsen is classified as the least polluted area in our republic.
- We have got a lot of means of public transport in the city of Pilsen.
- There are: buses, trams and also trolley-buses in Pilsen.

Trolley-bus



Area around city Ostrava and Ústí

- Ostrava and the close surroundings (50 km) represent the most polluted region not only in the CR but also within EU.
- Set limits for airborne dust and other pollutants are regularly exceeded.
- The main source of pollution is represented by surface mining of brown coal and its combustion in fossil fuel power plants in the region of **Ústecko**. There are 4 huge active mines.

Ostrava



Ostrava



Ústí



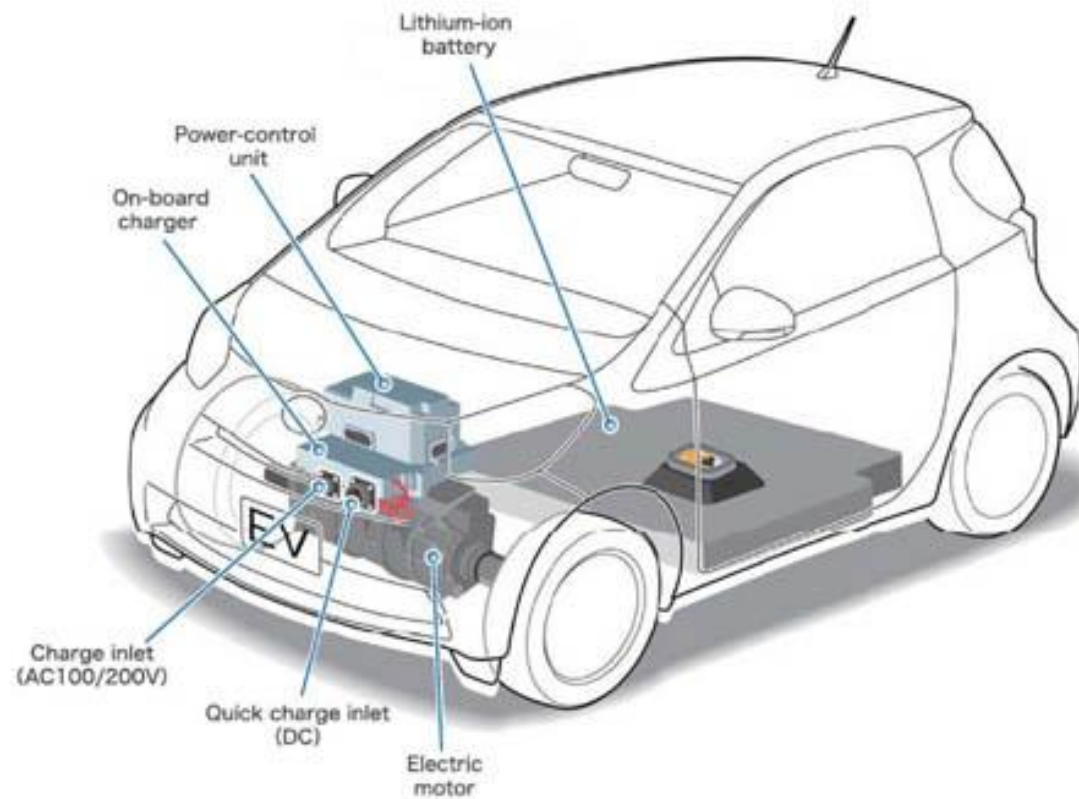
Transport and air

- The whole nowadays transportation is connected with the fossil fuel – oil.
- Combustion engines burn petrol/diesel and produce a mixture of waste gases which contribute to creation of greenhouse effect and a global warming as a consequence.
- Combustion engines also create smog which can be in high concentrations dangerous to all living forms.

Alternative transport

- Among alternative sources which can be used in transportation belong mostly electrical energy and water-hydrogen.
- In these days electric cars are slowly used although their utilization will be very slow.
- Water-hydrogen reactor remains to be an option without practical usage for now. Hydrogen energy is on phase of prototype.

Electric car





THE END