## GLOBAL WARMING

## **Effects of global warming**

**Air Pollution** 

**Social effects** 

The greenhouse effect

Global warming is a long-term rise in the average temperature of the Earth's climate system, an aspect of climate change shown by temperature measurements and by multiple effects of the warming.



Air pollution is a mixture of solid particles and gases in the air. Car emissions, chemicals from plants, dust, pollen and mold spores may be suspended as particles. Ozone,

suspended as particles. Ozone, and gas, is a major part of air pollution in cities. When ozone forms air pollution, it's also called smog.



The greenhouse effect is a natural process that warms the Earth's surface. When the Sun's energy reaches the Earth's atmosphere, some of it is reflected back to space and the rest is absorbed and re-radiated by greenhouse gases.

The 2016 outbreak of Zika virus, a mosquito-borne illness, highlighted the dangers of climate change. The disease causes devastating birth defects in fetuses when pregnant women are infected, and climate change could make higher-latitude areas habitable for the mosquitos that spread the disease.





Greenhouse Gas Emissions by Economic Sector

Industry

Agriculture, forestry,

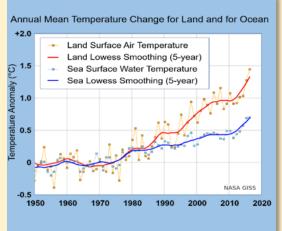
and other land use
Buildings
Transport
Other energy
0% 5% 10% 15% 20% 25% 30% 35%

Direct emissions (75% of total)

Emissions from electricity and heat production used by economic sector (25% of total)

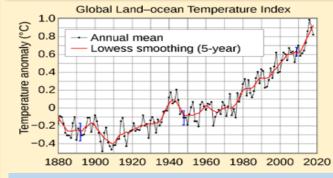


Annual greenhouse gas emissions attributed to different sectors as of the year 2010. Emissions are given as a percentage share of total emissions, measured in carbon dioxide-equivalents, using global warming potentials from the IPCC fifth Assessment Report.

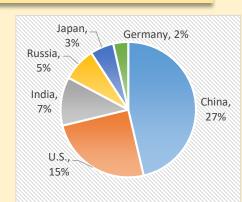


Annual (thin lines) and five-year lowess smooth (thick lines) for the temperature anomalies averaged over the Earth's land area (red line) and sea surface temperature anomalies (blue line) averaged over the part of the ocean that is of ice at all times (open ocean).

In a study conducted by David R. Easterling et al., Trends have been observed over a period of time. "It is clear from the observed record that there has been an increase in the global mean temperature of about  $0.6~^{\circ}\mathrm{C}$  since the beginning of the 20th century and that this increase is associated with a stronger warming in daily minimum temperatures than in maximums leading to a reduction in the daily temperature range.



Global mean surface-temperature change from 1880 to 2018, relative to the 1951–1980 mean. The 1951–1980 mean is 14.19 °C (57.54 °F). The black line is the global annual mean, and the red line is the five-year local regression line. The blue uncertainty bars show a 95% confidence interval and it constantly growing.



The first 6 countries by global carbon dioxide emissions in 2018.







## 7 things YOU can do to save the Earth:

- 1. Pay attention to how you use water;
- 2. Leave your car at home;
- 3. Walk or ride your bike to work, school and anywhere you can;
- 4. Recycle;
- 5. Compost;
- 6. Change your light bulbs;
- 7. Make your home more energy efficient;

