ENVIRONMENTAL THREATS

EMISSION OF POLLUTION

In past the only source of air pollution were natural processes for example volcanic eruptions, forest fires. With development of motorization the demand for energy generated from raw materials such as crude oil, natural gas or hard coal has increased.

OCEAN POLLUTION

The oceans have become **the giant waste dumps for plastic**. What's more, there are other serious environmental problems related to the oceans such as damage to ecosystems due to global warming, dumping of pollutants, wastewater and fuel spills. The UN calls for improved management of protected areas, giving them sufficient resources, and reducing overfishing, pollution and acidification of the ocean caused by the increase in the Earth's temperature.

CLIMATE CHANGE

Global warming due to CO_2 emissions — which according to the UN have increased by almost 50% since 1990 — is accelerating climate change and threatens the survival of millions of people, plants and animals by causing meteorological events like droughts, fires and floods, which are becoming increasingly frequent and more extreme. This means we need to take measures to mitigate its effects and adapt to its consequences which, even if we keep global warming under 2 ºC as required by the Paris Agreements, will last for centuries.

MELTING POLAR ICE-CAPS

Climate change also contributes melting polar ice-caps, **which in turn causes rising sea levels**. According to the NRCD, average temperatures in the Arctic region are rising twice as fast they are elsewhere and the ice is melting and rupturing. NASA satellite images reveal that the area of our permanent ice cover is shrinking at a rate of 9% every decade. At that rate, the Arctic could be totally ice-free in the summer season within decades.

ACID RAIN

As a result of acid rain, the quality of soils and forests deteriorates. In water reservoirs, the ingress of hazardous substances also worsens the quality of the waters, and as a result, fish die. Acid rainfall can cause respiratory system diseases for humans, while city architecture destroys the façades of monuments and other buildings. Is it possible to eliminate acid rain locally? Unfortunately, this is not possible. Collaboration on solving this problem should be global, as the source of atmospheric pollution is often far away from the acid rain occurrence due to atmospheric fronts.

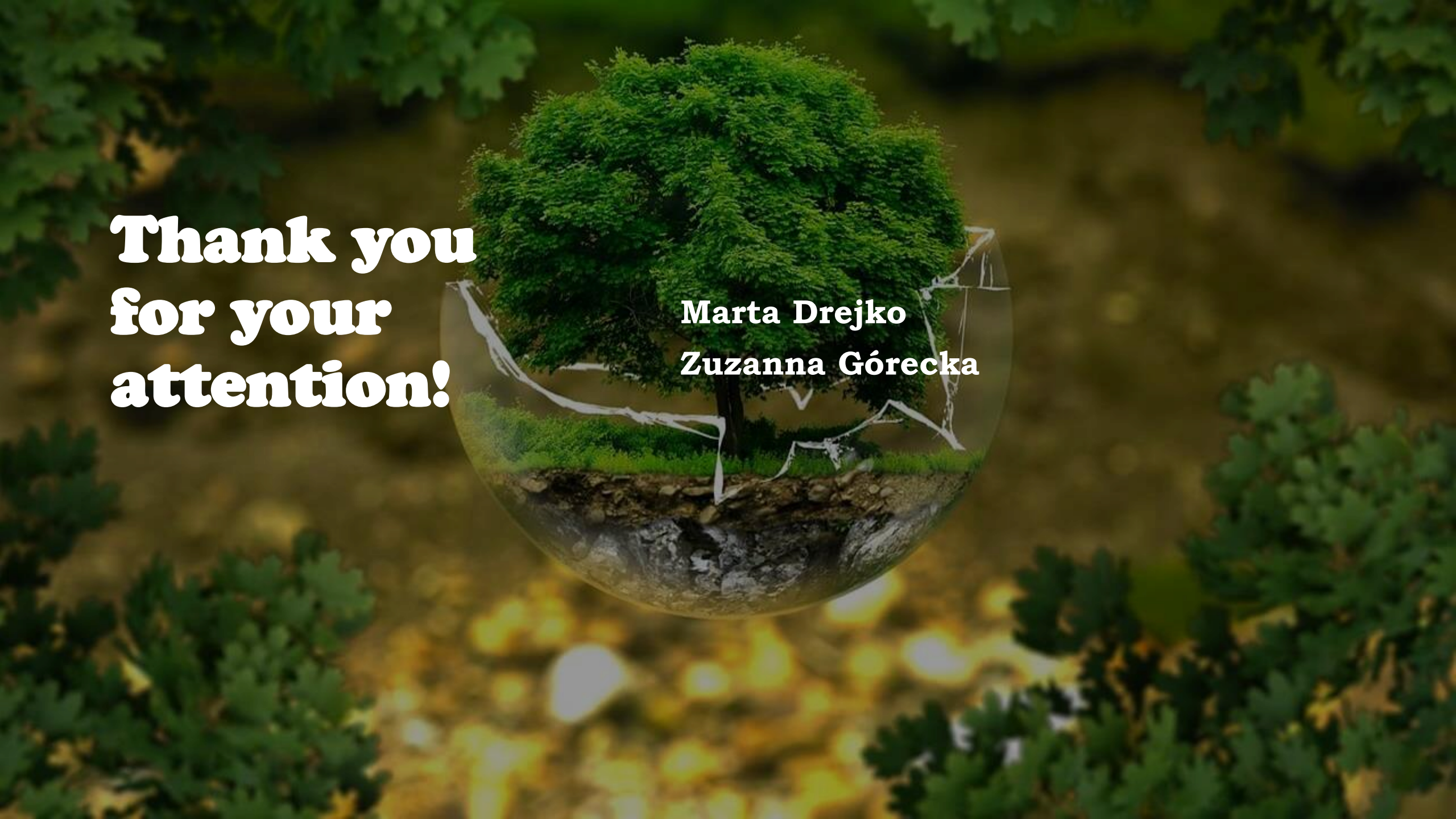
OZONE HOLE

Due to the fact that mankind has stopped using some substances, the ozone hole is slowly disappearing. However, this good news does not mean the end of our problems.

Chlorine is a chemically very active element, which makes it quite easy to replace hydrogen in molecules. Since its resources on our planet are significant it is not surprising that it is widely used in industry. Its use by mankind is universal and covers virtually all imaginable spheres of life. One of its uses in the 20th century was freons, especially dichlorodifluoromethane (R-12), which was commonly used as a coolant in refrigerators and also as a component of various types of aerosols. Especially in cosmetics, medicines and varnishes. Basically, CFCs seemed to be harmless, but it turned out that after escaping to the atmosphere to a height of more than 10 km, they decompose under the influence of ultraviolet radiation into individual constituent elements, and very reactive chlorine becomes a catalyst for the decomposition of ozone (O3). Thus, it was the cause of the ozone hole observed in the early 1980s.

SOIL DEGREDATION

The phenomenon of soil degradation is directly influenced by air pollution, acid rain and the use of artificial fertilizers. Plants grown in contaminated soils often contain toxic substances that can cause food poisoning when ingested. In order to improve the condition of soils, they should be restored to their former use value and biological function, and thus they should be fertilized in order to supplement the shortage of important elements.


Thank you for your attention!
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