

CONSEQUENCES OF GLOBAL WARMING

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World Climate Day is celebrated annually on December 8, initiated by several

environmental associations in France and Belgium. These events in the first days of December have a traditional annual character and are aimed at raising awareness of climate problems caused by global warming.

People often compare climate with weather, but in reality, there are significant differences between these concepts. The weather changes every day: sometimes it rains, sometimes it's sunny, sometimes it is snowing. Climate is the pattern of weather conditions over a large area or continent over a long period of time. Today, we are convinced that during the history of the Earth's existence, the climate has changed many times. Scientists know for sure that there were about seven ice ages, which were replaced by global warming, which left its mark on life of our planet. Currently, even in Ukraine, archaeologists are finding mammoth and dinosaur bones. Millions of years have passed since the first climate change, and now, thanks to the latest technologies, not only climate change, but also climate crises are occurring more and more often.

There is no doubt that human activity is exacerbating climate change, causing increasingly serious consequences that are felt by people everywhere. Scientists are also finding more evidence of a link between human activities and the extreme weather events they cause. These are frequent and intense heat waves, hurricanes, typhoons, melting of glaciers, rising water levels, warming and acidification of the World Ocean. As global temperatures rise, natural disasters are becoming more common, and some countries are damaged more and more. According to the World Meteorological Organization, the number of disasters has increased five-fold over the past 50 years due to climate change. This causes a daily loss of \$202 million.

Every year, more countries become aware of their vulnerability to climate change and the difficulty of recovering various sectors of the economy after emergencies. In 2013, “the Warsaw International Mechanism” emerged, which stated that losses and damages related to the negative effects of climate change include those that can be reduced through adaptation. However, the Warsaw Mechanism does not provide for liability or compensation for losses and damages.

The Paris Agreement, signed in 2015, also includes provisions on the coverage

of damages. Among other things, the signatories recognize the importance of preventing or minimizing losses caused by climate change phenomena. It is one of the cornerstones of the climate talks, as developed countries are reluctant to provide funding and are concerned that it could lead to legal liability for the effects of climate change. Fragile countries have highlighted their urgent need for disaster recovery funds. Seychelles, Marshall Islands, Canary Islands, Federated States of Micronesia, French Polynesia, Philippines, Tuvalu, Solomon Islands (have already lost 5 islands due to sea level rise).

Due to global warming, the world is experiencing major droughts and dust storms. A striking example is the fires in Australia in the winter of 2019-2020, during which more than 1 million animals were affected. Dry weather can trigger not only fires, but also sandstorms, when the wind blows dust into the air and carries it tens of kilometers. As a result, the fertility of the land decreases, desertification occurs.

Scientists believe that global warming is caused by rising levels of greenhouse gases, with levels of carbon dioxide in the air reaching their highest level in nearly 14 million years. Meanwhile, Earth's atmosphere transmits solar energy from space, but carbon dioxide and methane prevent the heat from returning. As a result, the Earth heats up like a greenhouse.

Another serious consequence of global warming is the melting of glaciers. Glacier loss has increased five-fold over the past decade. This directly affects the level of water in the world ocean, which is 2.5 times higher today than 10 years ago. As a result, by 2050, many settlements in the world will be washed away or completely flooded.

New pandemics are also a less obvious consequence of climate change. Global warming may "awaken" prehistoric viruses in glaciers, scientists say. The consequences of this can be a thousand times greater than the consequences of the Covid-19 pandemic.

But there is also an optimistic scenario: the Earth's temperature will rise to a critical 1.5 degrees, after which the Earth will begin to cool. However, to achieve this goal, people must stop burning fossil fuels and stop deforestation by 2030.

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