GLOBAL WARMING

Olena Tsiselska, Diana Telenchak

Faculty of Chemical Technology,

National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

Global warming is gradual raising the temperature of the surface of the Earth. It results in climate change on the planet. Global warming will continue due to new chemical emissions and the accumulation of greenhouse gas in the atmosphere. The biggest cause of global warming is human activity.

2021, according to European scientists, took 5th place for the entire time of observations (C3S, 2022). An increase in the Earth's surface temperature has increased the likelihood of floods and tornadoes. Also, a significant part of species of flora and fauna will disappear.

Irreversible future consequences:

• the global increase in the sea level, which in turn occurs due to the unwanted melting of Arctic and Antarctic glaciers;

- decreasing the biodiversity of the planet: its number and species;
- lack of clean water for consumption;

• a high probability of deterioration of interstate interactions due to lack of necessary food in some countries.

Implications for the world:

• In the coming decades, new and unexpected events may occur, such as the reduction of the circulation of the Arctic Ocean, which will be the main cause of major climate changes, especially in Europe. A temperature rise of just a few degrees will lead to the complete disappearance of the Amazon forests and the destruction of all glaciers.

• Global warming affects agriculture in different ways. In areas with a moderate type of climate, an increase in temperature will have a positive effect on crop yields. But in the tropics and subtropics, the productivity will decrease sharply and it will be necessary to exert great efforts to increase it even a little.

To reduce the temperature by 1.5-2 degrees soon, humanity needs to take a big and challenging step: abandon part of the energy sources and stop to cut down forests (Friedrich, Levin, Dugan, & Damassa, 2014). The number of victims of global warming already reaches tens of thousands, especially the population of poor countries.

Every country in the world must engage in "climate policy" and influence the standard of living of its citizens. These policies could potentially slow the economies of countries. Restrictions on greenhouse gas emissions could reduce production capacity and investment, as well as curb purchasing power. The result will be higher prices for goods. Due to these, governments have faced great difficulties in coordinating a global plan to fight with global warming on Earth.

However, it is within human power to mitigate the consequences of global warming, to slow down the rapid increase in temperature to avoid dangerous and irreversible changes in the future.

Global warming involves a big climate change which in turn will cause irreversible results to flora and fauna, our life, and the world. However, it is within humans' and nations' power to mitigate the consequences of global warming, to slow down the rapid increase in temperature to avoid dangerous modification: abandon part of the energy sources, stop to cut down forests, and reduce emissions and greenhouse gas. It is in our interests to protect nature, because our planet is our home.

References:

Friedrich, J., Levin, K., Dugan, B., Damassa, T. (2014, December 1). Visualizing the past, present and future of carbon emissions. Retrieved from https://www.wri.org/insights/visualizing-past-present-and-future-carbon-emissions

C3S data supports research and policy-making throughout 2021. (2022, February 2). Retrieved from <u>https://climate.copernicus.eu/c3s-data-supports-research-and-policy-making-throughout-2021</u>