HOW TO DEAL WITH GLOBAL WARMING?

Mariia Apanasenko

Faculty of Chemical Technology,

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

1. What should humanity do first?

First of all, we should decide what main problem we have. It consists in pollution by fuel and its waste. So, the main goal is to reduce the use of fossil fuels such as oil, carbon and gas and replace them with renewable and clean energy sources, while increasing energy efficiency.

"By the end of the next decade, we need to cut our CO₂ emissions by almost half (by 45%)," says Kimberly Nicholas, Associate Professor at the Center for Sustainability Studies at Lund University (LUCSUS) in Sweden. The path to this goal involves daily steps, such as cutting back on car travel and reducing air travel, switching to a green energy provider, and some changes in diet and food choices. But unfortunately, it seems like the problem of global warming will not disappear if a few conscious individuals start buying ecological products or switch to a bicycle. However, many experts agree that such decisions are important – they affect the

behavior of our acquaintances, forcing them to also change their lifestyle sooner or later. Moreover, other changes involve major systemic transformations, such as upgrading energy and food industry subsidies that still encourage the use of fossil fuels, as well as the introduction of new rules and initiatives for industries such as agriculture, forestry and waste management. One good example of the importance of this concerns refrigerants. An initiative group of researchers, businessmen and NGOs called Drawdown has found that eliminating hydrofluorocarbons (chemicals used in refrigerators and air conditioners) is an effective way to reduce harmful emissions into the atmosphere. This is because hydrofluorocarbons are 9,000 times more likely to contribute to warming than CO₂ emissions. Several years ago, 170 countries around the world agreed to phase out the use of this agent starting in 2019 (Ortys, 2018).

2. What can be changed in your daily life?

A 2017 study co-authored by Associate Professor Kimberly Nicholas assessed the effectiveness of 148 actions each individual can take on a daily basis. In the first place there was the refusal to travel by car. Compared to walking, cycling or public transport, a car is much more polluting to the environment. In industrialized countries such as the EU, avoiding car travel cuts CO₂ emissions by 2.5 tons - about a quarter of the annual average per person (9.2 tons), according to the Organization for Economic Cooperation and Development. "We must choose more efficient vehicles and, if possible, switch to electric vehicles," says Maria Virginia Vilarino, co-author of the report at the Intergovernmental Panel on Climate Change (Ortys, 2018).

3. Can I make a difference by changing my diet?

This is an important factor. In fact, after fossil fuels, the food industry, and in particular the meat and dairy industry, is one of the main causes of climate change. If cattle were a separate state, it would become the third largest emitter of greenhouse gases in the world after China and the United States. The meat industry contributes to global warming in three main ways. First, the regurgitation that occurs in cows as they digest food releases a lot of methane, which is a greenhouse gas. Second, feeding them corn and soy makes the process inefficient. And finally, they also need

a lot of water and fertilizers, which release greenhouse gases. And also, in land that is often obtained through deforestation - another reason for the increase in carbon emissions. In fact, to change the situation, you do not need to immediately become a vegetarian or vegan. It is enough to reduce the amount of meat consumption. If you cut the animal protein in your diet by half, you can reduce your carbon footprint (the activities that emit harmful gases into the atmosphere) by more than 40%. A bigger move could be something like eliminating meat from office lunches, as WeWork did this year (Gepel, 2021).

4. Does it matter what I buy in stores?

Yes. Because almost everything we buy emits harmful gases either at the production stage or during transportation. For example, clothing production accounts for about 3% of global CO₂ emissions, mainly due to the use of energy in production. Fashion, which changes rapidly, and the low quality of things contribute to the fact that we quickly throw them away and buy new ones. International transport of goods, by sea or air, is also harmful. Food shipped from Chile and Australia to Europe (or vice versa) has more "food miles" (that is, a longer "field to table" journey), and therefore leaves a larger carbon footprint than local produce. But this is not always the case, as growing out-of-season fruits and vegetables in energy-intensive greenhouses also generates emissions. The best is the seasonal food grown locally. Although vegetarian food still wins in terms of environmental friendliness.

Well, I have less meat for them and fly less, but others are not going to do this. What should I do?

Sociologists have found that when one person chooses a more sustainable lifestyle, others will follow suit as well. Furthermore, this is supported by the findings of four studies: Customers at an American cafe who were told that 30% of Americans were eating less meat were twice as likely to order a vegetarian lunch.

In one online survey, half of the respondents said they were flying less after someone they knew stopped flying because of climate change.

Californians were more likely to install solar panels if their neighbors had one.

Active members of society could more easily persuade people to install solar

panels if they were installed in their homes. Sociologists explain this by the fact that we constantly compare our way of life with the actions of our environment and, based on them, form our own coordinate system (World Health Organization, 2021).

5. What if I can't reduce the number of flights or give up my car?

If you're struggling to change your lifestyle, contributing to a sustainable environmental project may be an option. This does not mean that you relieve yourself of responsibility in this way, but it gives you another way to compensate for the negative consequences of your activities for the planet. The website of the UN Climate Convention has information about dozens of such projects around the world. Whether you are a coffee farmer in Colombia or a home owner in California, climate change will affect your life. But it is also true that your actions will affect the planet in the coming decades, for better or worse. You decide!

References:

Ortys, D. A. (2018, November 7). *Hlobalnoe poteplenye: chto mohu sdelat lychno ya? [Global Warming: What Can I Do Personally?]* BBC News Ukraine. Retrieved October 28, 2022, from https://www.bbc.com/ukrainian/vert-fut-russian-46126839.amp

Gepel, M. (2021). The World After Us: How to keep the planet from dying. Alpina publishing house.

World Health Organization. (2021, October 11). *Who's 10 calls for climate action to assure sustained recovery from covid-19*. World Health Organization. Retrieved October 28, 2022, from https://www.who.int/news/item/11-10-2021-who-s-10-calls-for-climate-action-to-assure-sustained-recovery-from-covid-19