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Greenhouse Effect and Its Consequences

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Today, people are conducting a kind of unplanned global experiment to reshape the entire planet. Destroying the ozone layer, thanks to which life on the Earth's surface is possible. Actions such as the use of fossil fuels in industry, deforestation, agrochemistry, waste burning at landfills, various types of transport have a negative impact on the composition of the biosphere and temperature balance. All this generates and enhances the greenhouse effect, which in turn puts our life and the life of the planet at risk.

The first mention of the nature of the greenhouse effect appeared back in 1827 in an article by physicist Jean Baptiste Joseph Fourier, who defines the greenhouse effect as an increase in the temperature of the lower layers of the planet's atmosphere in comparison with the effective temperature, that is, the temperature of the planet's thermal radiation observed from space ... As a result, the air temperature is higher than it should be, and this leads to such irreversible consequences as climate change and global warming [1].

For this reason, some scientists predict that in 200 years there will be such a phenomenon as the "drying up" of the oceans, namely a significant drop in water levels. This is one side of the problem. Another is that an increase in temperature leads to the melting of glaciers, which contributes to an increase in the water level of the World Ocean and leads to flooding of the coasts of continents and islands. The increase in

the number of floods and inundation of coastal areas indicates that the level of ocean waters is increasing every year.

An increase in air temperature leads to the fact that territories that are little moistened by atmospheric precipitation become arid and unsuitable for life. Here crops are dying, which leads to a food crisis for the population of the area. Also, animals do not find food, since plants die out due to lack of water. People are also under threat. An increase in air temperature leads to the development of the following diseases and epidemics: Ebola fever, babesiosis, cholera, bird flu, plague, tuberculosis, external and internal parasites, sleeping sickness; yellow fever [2].

These diseases spread very quickly geographically, since the high temperature of the atmosphere facilitates the movement of various infections and disease vectors. These are various animals and insects, such as Tsetse flies, encephalitis ticks, malaria mosquitoes, birds, and mice. From warm latitudes, these carriers migrate to the north, so people living there are exposed to diseases, since they do not have immunity to them [3].

Our country was one of the first to ratify the Paris Climate Agreement in 2015 and already has a clear plan of action: to rationally use energy resources and develop renewable, including carbon-free sources of generation. Such a concept as the "green square", which implies a combination of the energy of the sun, wind, water and atom, already operates in our country. By 2030, Belarus sets itself goals such as reducing total greenhouse gas emissions by 28% and increasing the share of renewable energy sources to 9% reduce the share of gas in energy production by up to 50% (Figure 1).

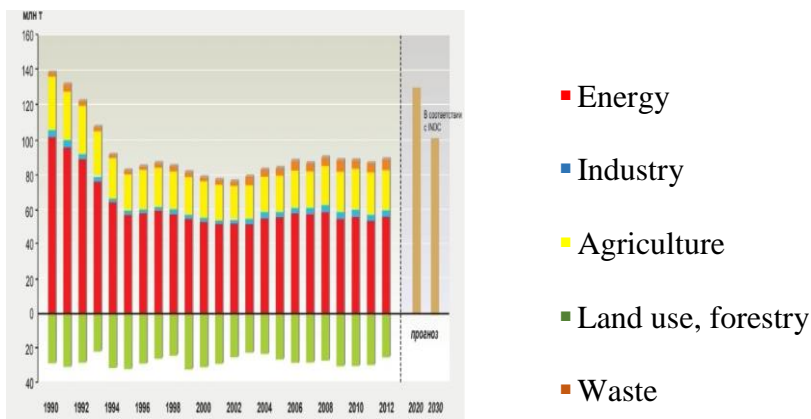


Figure 1 – Greenhouse gas emissions in Belarus and their expected change

Since the collapse of the USSR, the forest cover of the territory of Belarus has increased by 4%, and it continues to grow. At the same time, forestry is one of the most vulnerable sectors. Therefore, we have developed a strategy for adapting forestry to climate change until 2050. Adaptation strategies are also being developed for individual cities and regions. For example, IOO "EKOPROEKT" prepared such documents for the Sporovsky and Motolsky village councils and the city of Chausy within the framework of the EU project "Climate Forum East". 38 cities of Belarus are participating in the Mayors' Agreement on Climate and Energy - this is an EU initiative that any city can join. Bykhov, Bobruisk, Verkhnedvinsk, Vitebsk, Volkovysk, Gorodok, Dokshitsy, Ivatsevichi, Kalinkovich, Krasnopolye, Korma, Mosty, Mstislavl, Nesvizh, Novopolotsk, Pruzhany, Svetlogorsk, Slavgorod, Slutsk and Smorgon and others [4].

Local governments voluntarily commit themselves to reduce greenhouse gas emissions by at least 30% by 2030 on their territory. In Belarus, for instance, the project is

coordinated by Ecopartnership International Public Organization and the Interakcia Foundation.

Renewable energy sources currently account for approximately 5.5% of the country's energy balance. For example, wind turbines have a capacity of 75.8 MW. This figure is projected to increase to 500 MW by 2030. The largest wind farm is located near Novogrudok, with a capacity of 9 MW. As for solar power plants, the largest of them near Bragin was built by Velcom. The installation with a capacity of 18.48 MW covers an area of 60 football fields [4].

Thus, the greenhouse effect becomes the cause of global warming, and this leads to many ailments and infectious diseases. As a result of epidemics, thousands of people die around the world. By fighting the problem of global warming and the greenhouse effect, we will be able to improve the environment and, as a result, the state of human health.

References:

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