Green Leader

CLIMATE CHANGE AND OUR FUTURE?

GREEN INDUSTRY FOUNDATION

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In the face of global problems caused by climate change, the future is becoming increasingly uncertain and requires urgent understanding and concrete action. These phenomena are the result of uncontrolled human activity and are now causing serious environmental, social and economic consequences around the world. Rising sea levels, extreme weather events, loss of biodiversity and changes in access to natural resources are confronting humanity with real threats that require immediate attention and remedial action. Understanding the complexity and impact of climate change on our lives is crucial to our ability to adapt and reduce negative impacts. In addition, it is important to seek solutions that enable a sustainable approach based on sustainable actions to reduce the destructive impact on the natural environment.

Compared to the time before intensive industrial development, the average temperature across the planet has statistically increased by 1.1 degrees Celsius. The years between 2011 and 2020 have been recognised as the warmest decade on record. Poland alone recorded an average of 13 days when the temperature exceeded 30 degrees Celsius , compared to an average of four days in the 1970s. The number of days with freezing temperatures is decreasing. Continuous increases in air temperature can lead to the extinction of animal species, the conversion of many areas and pose a threat to human health and life. Climate change has the effect of increasing the frequency of extreme weather conditions. Examples of such phenomena are the prolonged heat waves and record-breaking temperatures that affect various regions on the globe. This has resulted, for example, in strong and widespread fires that have engulfed large areas of forest. Another aspect is the violent storms and rainfall, which contribute directly to flooding, including sudden floods. In addition, intense hurricanes, tornadoes and cyclones pose a serious threat to human health and life. Increasing extreme weather conditions also have direct consequences for people, as agricultural harvests are destroyed. Not only does this affect the work of farmers, but poorer yields affect the entire economy.

The amount of greenhouse gases in the atmosphere is gradually increasing. This includes gases such as carbon dioxide, methane and nitrous oxide. Compared to the pre-industrial era, the levels of these three gases have increased by 149%, 262% and 123% respectively. Analysing only carbon dioxide emitted by humans, between 30 and 40 billion tonnes of this greenhouse gas are released into the atmosphere every year, and these emissions are steadily increasing. This is one of the key sources of the acceleration of climate change phenomena.

Carbon footprint, also known as ‚carbon emissions', refers to the amount of greenhouse gases, especially carbon dioxide (CO2) but also other gases, emitted by human activities directly or indirectly. It is a measure of the impact that our daily activities have on climate change.

Factors influencing the carbon footprint:

- Energy consumption - Electricity use, heating, air conditioning, as well as the type of energy used (renewable or fossil).
- Transport - Type of vehicles, frequency of travel, distances travelled by car, air or sea travel.
- Food production - Agricultural processes, transport, packaging and food consumption.
- Consumption of goods and products - Production, packaging and transport of goods.
- Industrial production methods - Production processes, energy consumption in factories and industrial plants.

How to prevent increasing the carbon footprint?:

- Using energy more efficiently by using energy-efficient appliances, insulating homes and switching to renewable energy sources.
- Choice of transport modes with a lower environmental impact, such as bicycle, public transport or electric cars.
- Preference for local, seasonal products, reduction of food waste.
- Development of technologies to reduce greenhouse gas emissions in production and industry.

If the development of climate change is not stopped, it is predicted that it will bring many adverse effects such as:

- An increase in extreme weather conditions such as violent hurricanes, plunging areas under water floods and devastating droughts are on the horizon.
- Huge melting of glaciers and Arctic ice would contribute to sea level rise, threatening coastal areas and flooding low-lying areas.
- Projected climate change would have a severe impact on food production, causing food deficits and price increases.
- Elevated temperatures would foreshadow extreme heat waves, posing health risks, especially for the elderly and sick.
- Degradation of ecosystems and loss of biodiversity would lead to the extinction of many plant and animal species..
- The development of new infectious diseases and the migration of climate-related pathogens would pose a threat to human health.
- Problems with access to clean water could result in resource conflicts, especially in areas af-

fected by droughts.

- Global economy would face significant financial losses due to natural disasters.
- The emergence of climate-related migration crises would increase societal and political tensions.
- An increase in greenhouse gas emissions would contribute to continued global warming and an increase in the greenhouse effect.
- Changes in the distribution and behaviour of marine species would lead to a fisheries crisis, affecting the global food market.
- Intense droughts would lead to loss of fertile soils, reducing the ability to grow food.
- Conflicts and territorial disputes over access to water and food resources could escalate.
- Increased exposure to air pollution would result in an increase in respiratory diseases.
- Investment in climate change adaptation and disaster recovery would put a strain on public budgets.
- Destruction of the natural environment would contribute to the loss of jobs related to tourism, ecotourism and agriculture.
- Increased prices of insurance and protection against natural disasters would trigger financial difficulties for many households.
- People's mental health could be affected by the stress associated with natural disasters and uncertainty about the future.
- Migrations caused by climate change would put pressure on other communities and countries, which could lead to conflicts.
- Projected climate change would reduce development opportunities and quality of life for future generations.

Today, changing climate conditions represent one of the most serious challenges facing humanity. These changes are affecting generations to come, creating a range of problems from extreme weather conditions to destabilisation of both economies and natural environments. It is clear that these changes will have a huge impact on both human life and nature as a whole. Therefore, striving to reduce greenhouse gas emissions, adapting to changing realities and taking action to protect nature are all key to creating a more sustainable future. Overcoming this challenge requires concerted effort, creative innovation, education and taking informed steps to ensure a more harmonious and secure future.

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