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CLIMATE AND ENVIRONMENT. GLOBAL WARMING: WHO IS RIGHT AND HAS THE RIGHT TO IT? HOW CAN THE TEMPERATURE ON THE PLANET BE REDUCED AND A MILLION LIVES SAVED?

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Abstract

What is climate change? Climate change refers to fluctuations in global temperatures and weather patterns that occur over time. The climate tends to change, but the current climate change is due to global warming, which is mainly caused by human activity, which changes the composition of the atmosphere. Also heating of the ocean due to heating of igneous rock. So why not manage this process for the benefit of the world.

Keywords: educational process security; higher education; martial law in Ukraine; distance learning; participants in the educational process; efficiency and quality of higher education.

Introduction

What is climate change? Climate change refers to fluctuations in global temperatures and weather patterns that occur over time. The climate tends to change, but the current climate change is due to global warming, which is mainly caused by human activity, which changes the composition of the atmosphere. Also heating of the ocean due to heating of igneous rock. So why not manage this process for the benefit of the world. Climate change is observed in all regions of the planet, and this process is becoming more and more intense, and some of the emerging trends are already irreversible, at least at this stage. This is stated in the report of the Intergovernmental Panel on Climate Change, published in Geneva. Climate change, caused by human activity, already today leads to numerous cases of extreme weather in all regions of the planet. Moreover, according to scientists, the entire climate system of the Earth is changing, and these changes affect the state of the atmosphere, oceans, ice sheets and the surface of the Earth. Many of these changes are unprecedented, and some trends – such as sea level rise – cannot be reversed in the coming centuries or even millennia. However, the authors of the report - 234 experts from 66 countries of the world - believe that it is within the power of humanity to limit the scale of climate change: by significantly reducing the emissions of harmful substances into the atmosphere, including greenhouse gases, it is possible to significantly improve air quality and stabilize the global temperature in a short period of time. Alarm signal for humanity. According to UN Secretary General Antonio Guterres, the report of the Working Group is nothing more than an alarm signal for all of humanity. "This alarm is deafening, and the evidence presented is undeniable," the head of the UN commented on the scientists' conclusions. He reminded that the international community agreed to keep the global temperature increase at a level of no more than 1.5 degrees, but in the near future, if urgent measures are not taken, this threshold will

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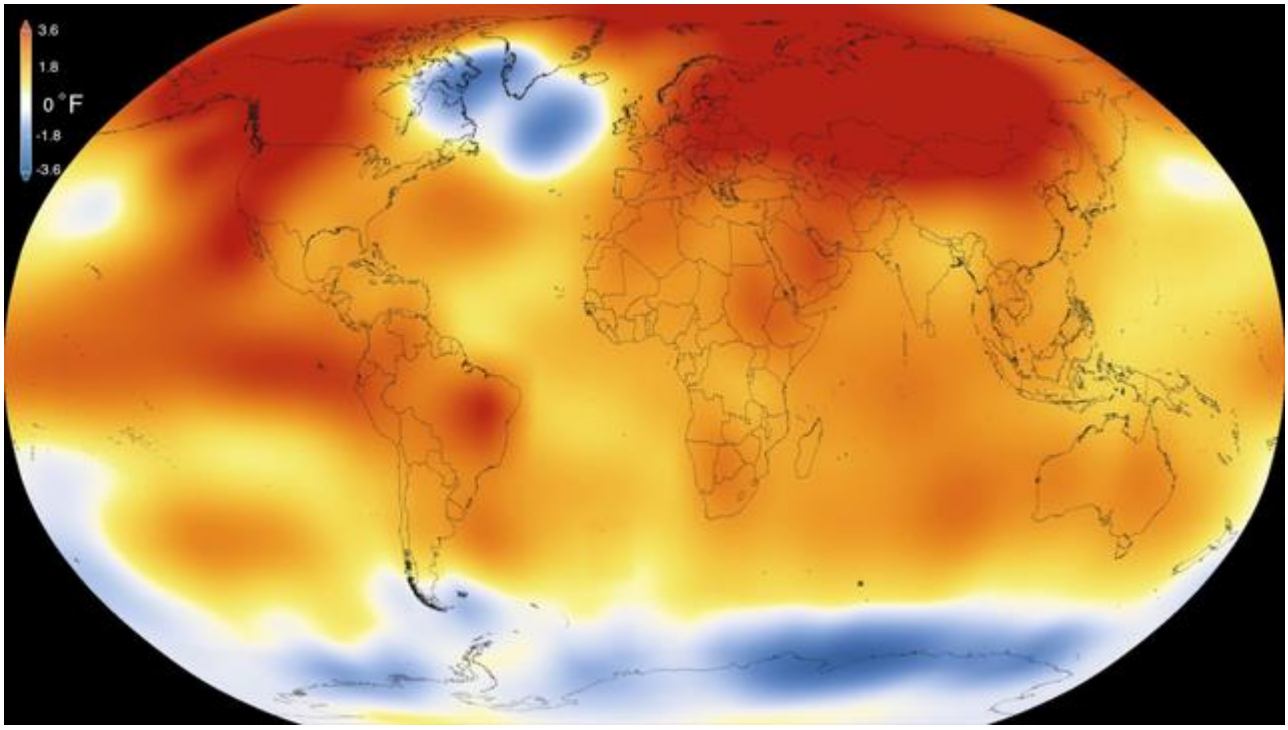
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be exceeded. "We must act decisively to prevent this from happening," Guterres warned. Time was running out. According to the report, human emissions of greenhouse gases were the main cause of global warming of about 1.1 degrees Celsius between 1850 and 1900. This level is expected to reach or exceed 1.5 degrees on average in the next 20 years. "This report is a sobering assessment of what reality will be like in the coming decades," says Valerie Masson-Delmot, co-chair of the expert working group. "We now have a much clearer picture of the Earth's past, present and future climate, which is very important for understanding where we are going, what we can still do and how we should prepare for future changes." According to scientists' forecasts, in the coming decades, climatic changes will increase in all regions of the planet, in particular, periods of prolonged heat will increase and cold seasons will decrease. With global warming of two degrees on the Celsius scale, agriculture will be affected first of all and the burden on health care systems will increase.



Consequences of climate change. But it's not just about the temperature rise. Climate change leads to many unforeseen consequences in various areas, including:

1. Climate change increases the water cycle, which in some regions leads to intense precipitation and associated floods, and in others to extreme droughts.
2. Climate change affects the pattern of precipitation. In high latitudes, the probability of precipitation increases, while in the territory of most of the subtropics, it decreases.
3. In coastal areas, the trend of rising sea levels will continue in the 21st century, which in turn will contribute to more frequent and severe flooding in low-lying areas and soil erosion. Extreme changes in sea level that used to occur once every 100 years will occur annually near the end of the current century.
4. Further warming will increase the melting of permafrost, the loss of snow cover and the reduction of glaciers in the Arctic.
5. Changes in the state of the world's oceans will cause more frequent inflows of warm currents, which will affect the ocean ecosystem and the situation of people who live by fishing.
6. Certain aspects of climate change may affect urban dwellers, who will experience a warming climate and face flooding from heavy rainfall and rising sea levels in coastal regions.

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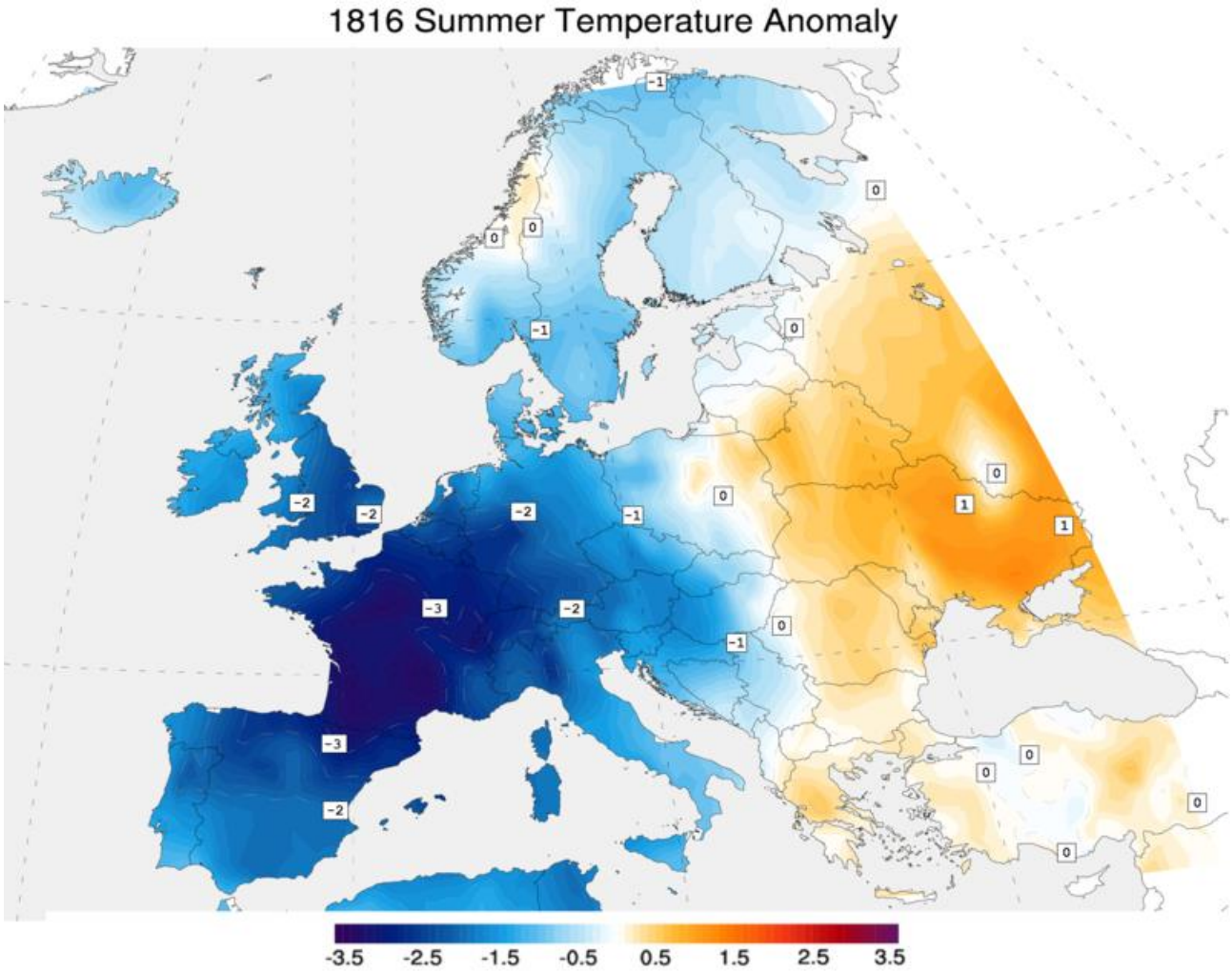
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"During the long-term study of the degree of human influence on Earth's climate change, we clearly found out, and the negative role of human influence is beyond doubt," says Valerie Masson-Delmot. - The increase in the content of carbon dioxide in the atmosphere is the main driving force of climate change, and we are obliged to accept this factor as a given."

Methods

The Year Without a Summer was 1816, a year in which Western Europe and North America experienced extremely cold weather. To this day, it remains the coldest year since weather records began. In the USA, he was nicknamed "eighteen hundred and froze to death".



Only in 1920, the American physicist and climatologist William Humphreys proposed a hypothesis to explain the occurrence of "years without summer". In his opinion, climate change is associated with the eruption of the Tambora volcano on the Indonesian island of Sumbawa, located in the Southern Hemisphere, the most powerful volcanic eruption ever observed, directly costing the lives of 71 thousand people, which is the largest number of deaths from a volcanic eruption in the entire history of mankind. Its eruption, which occurred in April 1815, scored seven points on the Volcanic Eruption Scale (VEI), and the massive emission of ash into the atmosphere, amounting to 150 km3, may have caused the effect of a volcanic winter in the northern hemisphere, which was felt for several years. According to Koli-Dai and co-authors [1], who studied the isotopic composition of Arctic ice (2009), six years before that, another eruption probably occurred in the tropics. Although the eruption is not mentioned in written sources, its effect on the weather was comparable to that of Tambor. Theoretically, as a result of the joint action of these two eruptions, the following decade (1810-1819)

turned out to be the coldest (at least) in the previous 550 years. It took several months for the ash to spread through the Earth's atmosphere, so in 1815 the effects of the eruption in Europe were not yet felt so strongly. However, in March 1816, the temperature continued to remain winter. In April and May there was an unnatural amount of rain and hail. There were frosts in America in June and July. Snow fell in New York and New England. Germany was repeatedly tormented by strong storms, many rivers (including the Rhine) burst their banks. In Switzerland, it snowed every month. The unusual cold led to a catastrophic crop failure. In the spring of 1817, grain prices rose tenfold, and famine broke out among the population. Britain bought more grain than at any time in history. Tens of thousands of Europeans, who were still suffering from the destruction of the Napoleonic Wars, emigrated to America. The high level of ash in the atmosphere caused extremely impressive events during this period, especially those depicted in the paintings of Caspar David Friedrich and William Turner, in which yellow shades prevailed [2]. Research led by K. Cerephos from the Athens Observatory, in which images of the sun were analyzed in 554 paintings by 181 artists who worked from 1500 to 1900, allowed us to conclude that the intensity of the color of the sky in the paintings corresponds to the volume of volcanic emissions at the time of their creation [3] [4] [5]. The English writer Mary Shelley spent the summer of 1816 with friends at the Villa Diodata near Lake Geneva. Because of extremely bad weather, vacationers often couldn't leave their homes. Therefore, they decided that everyone would write a scary story, which they would then read to each other. Mary Shelley then wrote her famous novel "Frankenstein, or the Modern Prometheus", and John Polidori - the first story about vampires [5]. Byron's poems, written in this year, are full of complaints about the gloomy sky and incessant bad weather [6].

The results

We propose to reduce the temperature by 1-5 degrees in order to stop the warming of the planet and make living conditions comfortable in some regions, such as Africa, as follows:
1) As we can see from what is indicated in the report, greenhouse gas emissions as a result of human activity were the main cause of the global warming of the climate by about 1.1 degrees Celsius between 1850 and 1900. This level is expected to reach or exceed 1.5 degrees on average in the next 20 years.

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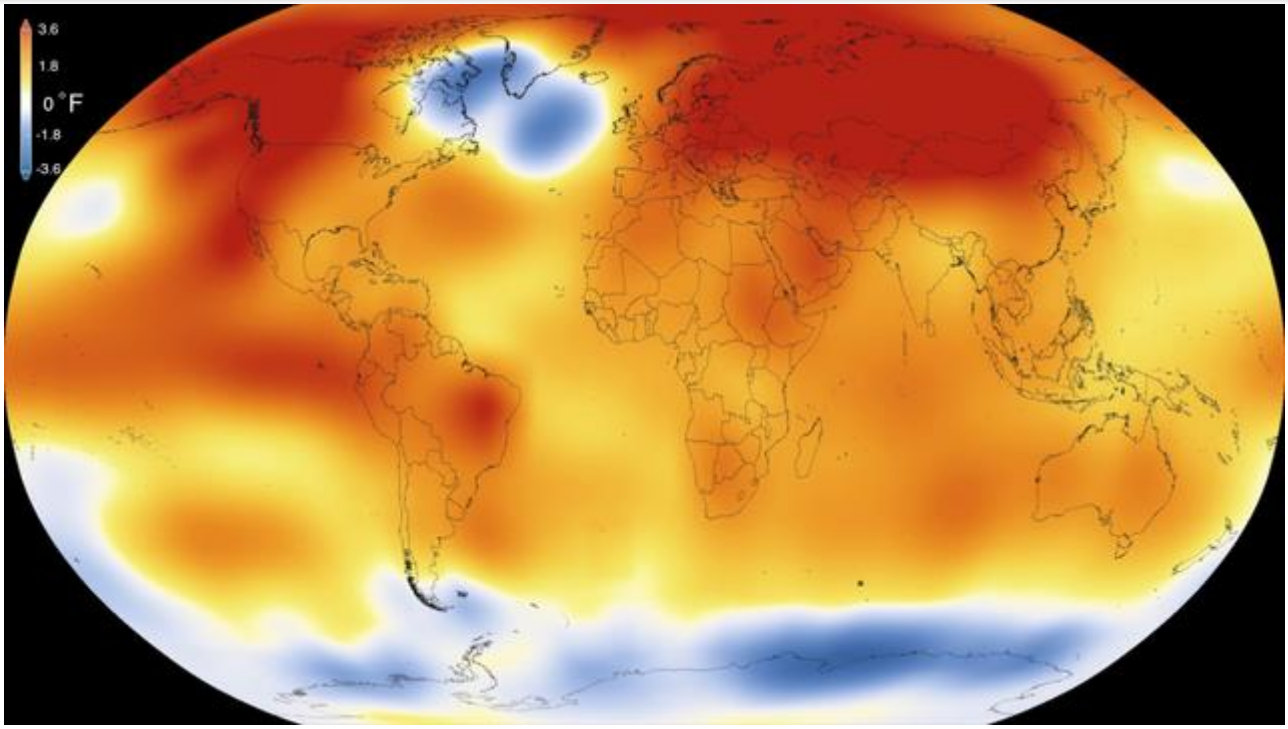
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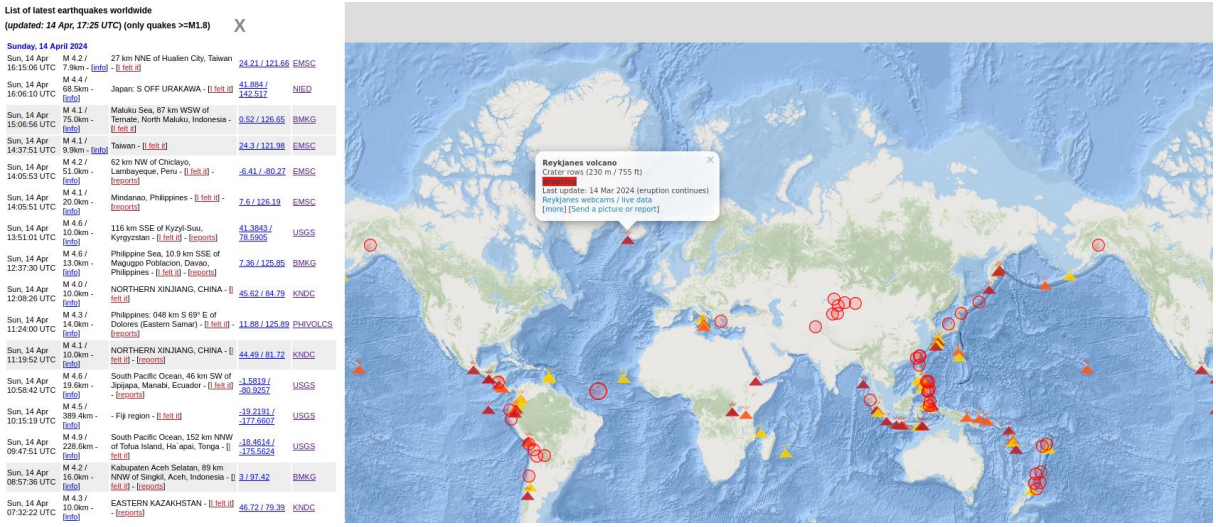
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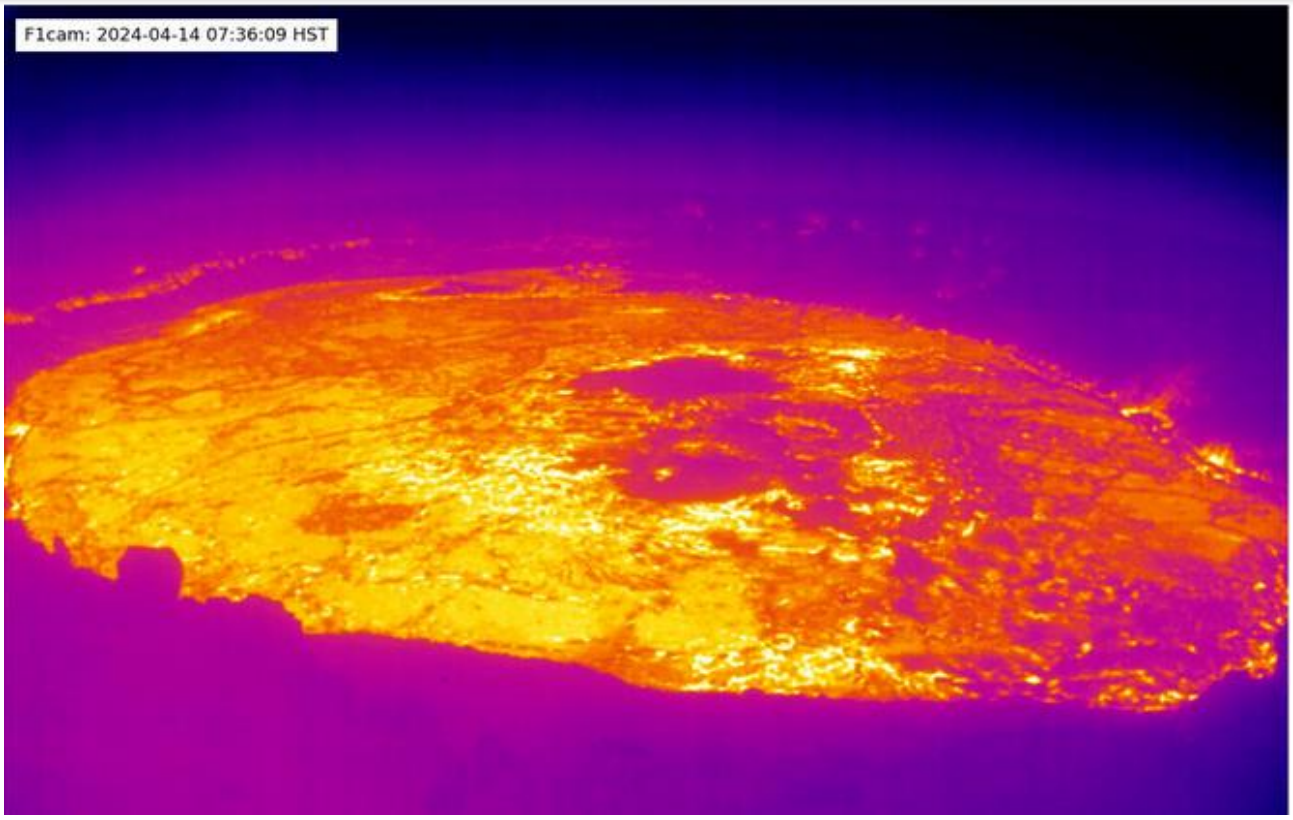
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As shown in the figure, the main heating occurs from the Arctic Pole. The ocean heats up due to the heating of the earth's surface in the deep parts of the earth's crust, deep in the mantle. The method consists in reducing the heating of the region where necessary through a system of controlled volcanic emission of heated magma, which will lead to a cooling of the region by several degrees. As it was proved by the example of the emission of volcanoes since 1816, when the temperature on the planet dropped by 2-3 degrees. As we can see on the map, after that emission in 1816, the temperature in the region is moderate.
In order to reduce the Arctic overheating, it is necessary to make an artificial emission of volcanoes in Reykjavík earlier. As we can see on the map:



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This allows us to control the temperature all over the planet, so we will need up to a degree. It is necessary to use it on a permanent basis.

2) We offer a volcano activation system to make and is suitable for the production of shale gas using inclined-horizontal drilling (eng. directional drilling), multi-stage hydraulic fracturing (eng. hydraulic fracturing (with the use of proppants)) and seismic modeling. A similar mining technology is used to obtain coal methane.

Instead of hydraulic fracturing (fracking), more expensive anhydrous propane fracking (injection of liquefied propane in the form of a gel) can be used as an experiment.

This enables a controlled volcanic release of the required power to reduce the collapse of the magmatic layer.

Discussion

Determining that the change of the Earth's climate and its adverse consequences are a matter of common concern to humanity: -concerned that as a result of human activities there has been a significant increase in the concentration of greenhouse gases in the atmosphere, that such an increase is enhancing the natural greenhouse effect and that this will lead, on average, to additional warming of the Earth's surface and atmosphere and may adversely affect natural ecosystems and humanity:

1. noting that the largest share of global Greenhouse gas emissions has historically and currently been accounted for by developed
2. countries, that per capita emissions in developing countries are still relatively low, and that the share of global emissions in developing countries will increase in line with their social and development needs;

3. considering the role and importance of sinks and reservoirs of greenhouse gases in terrestrial and marine ecosystems;
4. noting the numerous uncertainties in climate change projections, in particular regarding their timing, scale and regional specificities;
5. recognizing that the global nature of climate change requires the widest possible cooperation of all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and real capabilities, as well as their social and economic conditions;
6. referring to the relevant provisions of the Declaration of the United Nations Conference on the Human Environment, adopted in Stockholm on 16 June 1972 (995_454);
7. recalling that, in accordance with the Charter of the United Nations (995_010) and the principles of international law, States have the sovereign right to regulate their own resources;
8. in accordance with their environmental and development policies and have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction;
9. reaffirming the principle of state sovereignty in international cooperation in responding to climate change;
10. recognizing that States should enforce effective environmental legislation, that environmental standards, objectives and management priorities should reflect the environmental and development aspects to which they apply, and that the standards of some States may be incompatible and unreasonable in terms of the economic and social costs to other States, in particular developing countries;
11. recalling the provisions of General assembly resolution 44/228 of 22 December 1989 on the United Nations Conference on Environment and Development and resolutions 43/53 of 6 December 1988, 44/207 of 22 December 1989, 45/212 of 21 December 1990 and 44/169 of 19 December 1991 on the protection of the global climate for the benefit of present and future generations of mankind;
12. recalling also the provisions of General Assembly resolution 44/206 of 22 December 1989 on the possible adverse effects of sea-level rise on coastal islands, especially low-lying coastal areas, and the relevant provisions of General Assembly resolution 44/172 of 19 December 1989 on the implementation of the Plan of Action to Combat Desertification;
13. further referring to the 1985 Vienna Convention for the Protection of the Ozone Layer (995_088) and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (995_215), as amended and supplemented on 29 June 1990 (995_076);
14. taking note of the Ministerial Declaration adopted on 7 November 1990 at the Second World Climate Conference;
15. recognizing the value of the analytical work carried out by many States in the field of climate change and the importance of the contribution of the World Meteorological Organization, the United Nations Environment Programme , other bodies, as well as organizations and bodies of the United Nations system , other international and intergovernmental bodies, to the process of sharing the results of scientific research and coordinating research;
16. recognizing that the measures needed to understand and address the problems of climate change will be most effective from an environmental, social and economic point of view only if they are based on appropriate scientific, technical and economic foundations and are.
17. constantly reviewed in the light of new results obtained in these fields;
18. recognizing the economic feasibility of measures to address climate change issues themselves, as well as their ability to contribute to addressing other environmental issues;

19. recognizing also the need for the immediate adoption, as a first step, by developed countries of flexible measures based on clear priorities towards the development of comprehensive response strategies at the global, national and, where agreed, regional levels for all greenhouse gases, with due regard to their relative contribution to the greenhouse effect;
20. further recognizing that low-lying and other island countries, countries with low-lying coastal, arid and semi-arid areas, or areas prone to flooding, drought and desertification, and developing countries with vulnerable mountain ecosystems are particularly vulnerable to the adverse effects of climate change;
21. recognizing the particular difficulties of those countries, in particular developing countries, whose economies are particularly dependent on the production, use and export of fossil fuels, arising from the application of measures to limit greenhouse gas emissions;
22. reaffirming that climate change response measures should be coordinated with the overall socio-economic development package in order to prevent adverse impacts on it, taking full account of the legitimate priority needs of developing countries in achieving sustainable economic growth and overcoming poverty;
23. recognizing that all countries, and particularly developing countries, need access to the resources necessary to achieve sustainable socio-economic development, and that in order for developing countries to move towards this goal, their energy consumption must increase, taking into account the possibilities of achieving greater energy efficiency and combating greenhouse gas emissions in general, including through the application of new technologies under conditions that make such application economically and socially beneficial;
24. determined to protect the climate system for the benefit of present and future generations;

There is no doubt in anyone's mind that it is human activity that exacerbates climate change and causes increasingly worse consequences that are noticed by residents of all corners of the planet. Scientists are also finding increasing evidence of a link between human activity and the extreme weather events it causes. These are frequent and intense heat waves, hurricanes and typhoons, melting glaciers, raising the level of the world ocean, its heating and acidification. With the rise in global temperature, natural disasters are becoming more and more, and individual countries are suffering more and more damage. Every year, more and more countries are aware of their vulnerability to climate change and the difficulty of restoring various sectors of the economy after emergencies. It is necessary to call on all leading representatives of governments, businesses, cities and regions, civil society and financial institutions to intensify their efforts. Also appeal to everyone to provide reliable and serious new solutions in the field of combating climate change and nature conservation, which will allow us to move forward and take appropriate measures in connection with the acute problem of the climate crisis. Constant discussion and search for all ways to stop climate change and improve it at all levels. For a better life on the most beautiful planet, so that it remains current and becomes better every day.

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