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GLOBAL WARMING

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ABSTRACT:

This article explores the effects and consequences of climate change, which has become a global problem in all countries of the world today. Global warming, a pressing environmental issue, refers to the gradual increase in Earth's average temperature due to human activities such as burning fossil fuels and deforestation. This phenomenon has far-reaching consequences on our planet's ecosystem, weather patterns, and human health. As well as, you can see solutions to these problems: greenhouse effect, global warming and the melting of glaciers.

INTRODUCTION. Global warming is a long-term increase in the overall temperature of the planet. Global warming occurs when carbon dioxide (CO2) and other air pollutants build up in the atmosphere, absorbing sunlight and sunlight falling from the Earth's surface.

Although this warming trend has been going on for a long time, it has accelerated significantly in the last hundred years due to the burning of fossil fuels. Along with the increase in the number of people, the amount of burning fuel has also increased. Fossil fuels include coal, oil, and natural gas, and burning them causes a phenomenon known as the "Green house effect" in the Earth's atmosphere.

Scientists from all over the world have examined our planet for a long time and made a unanimous "Diagnosis": global warming is accelerating and its cause is undoubtedly man.

Moreover, according to the scientists: climate warming has been steadily increasing since the beginning of industrialization in the stage of human development. This increases the level of danger of the global problem. Scientists have noted that the main factor of global warming is the greenhouse effect. This phenomenon is observed due to the release of various harmful industrial gases into the Earth's atmosphere and their accumulation there. Gases released as a result of fuel combustion trap solar energy in the atmosphere. Condensation of heat from the sun on the earth's surface causes the greenhouse effect. The increase in the volume of greenhouse gases is causing the warming of the planet's climate.

LITERATURE REVIEW

Undoubtedly the world's most notable climate activist today, Greta Thunberg first gained worldwide attention in 2018 when she started organising various protests outside the Swedish Parliament calling for stronger climate action. Her efforts quickly transformed into a global movement named Fridays for Future, and inspired numerous other youths to join the cause and raise their voices. The young Swedish activist has since made a number of blunt yet memorable speeches at various international conferences criticising world leaders for their failure to address the climate crisis. . "The climate crisis is both the easiest and the hardest issue we have ever faced. The easiest because we know what we must do. We must stop the emissions of greenhouse gases. The hardest because our current economics are still totally dependent on burning fossil fuels, and thereby destroying ecosystems in order to create everlasting economic growth",- Greta Thunberg.

In 1896, a seminal paper by Swedish scientist Svante Arrhenius first predicted that changes in atmospheric carbon dioxide levels could substantially alter the surface temperature through the greenhouse effect. In 1938, Guy Callendar connected carbon dioxide increases in Earth's atmosphere to global warming.

The devastating consequences of natural disasters and extreme weather events are forcing the population of some regions to move to safer areas. According to the UN's International Organization for Migration (IOM), the number of climate (or environmental) migrants could

approach 216 million or at least 44 million by 2050. In turn, according to experts, as the consequences of the climate crisis intensify, international climate migrations will increase. Climate change and global warming are causing various natural disasters in many parts of the world. The devastating consequences of natural disasters and extreme weather events are forcing the population of some regions to move to safer areas.

And there you can look at several causes and effects of these.

Causes of Global Warming:

What is the main cause of climate change? Experts note that the main factor of climate change is the greenhouse effect. The accumulation of heat from the sun on the Earth's surface and condensation is called the greenhouse effect. In other words, the Earth, in turn, returns the light from the sun to space through the atmosphere. Some of these rays are absorbed by various gases emitted by humans instead of escaping into space. As a result of its not returning to space, the Earth's surface heats up more than normal and a greenhouse layer is formed, which affects the climate. As a result, there is little difference between the highest and lowest temperatures during the day. That is, people and nature are affected by hot and humid air at night as well as during the day. Such daily heat causes a sudden warming phenomenon. The main gas that creates the greenhouse effect is carbon dioxide. It is added to the atmosphere both naturally and artificially. Methane, nitrogen oxide and other harmful gases are released into the air due to the human factor, which determines the level of the entire greenhouse effect. The increase in the concentration of gases that create the greenhouse effect disrupts the natural heat balance on the planet and causes the anthropogenic greenhouse effect. According to estimates, by the year 2100, due to the greenhouse effect, the global gross domestic product may decrease by more than 20 percent. Also, as the main problems today, the impact of anthropogenic factors and the drastic reduction of carbon gas-absorbing forest areas, the depletion of the ozone layer, and the reduction of wildlife areas can be mentioned.

DUE TO ICE MELTING...

Under the influence of global warming, the size of the Greenland and Antarctic ice sheets is shrinking. According to NASA, Greenland has been losing an average of 279 billion tons of ice per year since 1993, and Antarctica is losing 148 billion tons of ice per year. As a result of the collapse of the Greenland ice sheet or the Antarctic ice shelf, the water level may rise by 6 meters. A natural disaster could leave large parts of Florida, the Gulf Coast, New Orleans and Houston under water.

Satellite observations show that spring snow cover in the Northern Hemisphere has decreased significantly over the last decade. According to forecasts, under the influence of this phenomenon, it is not surprising that in the next 100 years, the Antarctic and Greenland glaciers will turn green, and snow will become a rare phenomenon.

In the last century, the level of the seas on the earth has risen by about 20 centimeters. However, this figure in the last two decades is almost twice as much as in the last century, and the process is accelerating every year. As a result of rising sea levels, some islands, such as the Solomon Islands, have disappeared. Also, the states of Tuvalu and the Marshall Islands in the Pacific Ocean may shrink and become uninhabitable in the next 10 years.

Forest fires…

Large-scale forest fires in southern France, Spain and the Italian island of Sardinia have damaged thousands of hectares of forest and agricultural land.

As a result of large-scale fires that started in northern California on July 13 and received the name Dixie, more than 200 thousand hectares of land were damaged.

The government of North Macedonia has imposed a state of emergency for a month due to large forest fires.

As a result of the abnormal heat, terrible fires broke out in the west and south of Turkey, tourist activities and excursions were completely stopped. Agricultural fields and farms were caught in the fire, livestock died.

Strong forest fires have been raging in Greece for several days. The disaster happened because the temperature was above 40 degrees for more than a week. In some regions, the temperature has risen to 47 degrees.

Forest fires in the Republic of Yakutia in eastern Russia, according to official data, have covered an area of 6 million hectares - twice the size of Belgium.

Three days of mourning have been announced in the country for those who died in the fires in Algeria.

Abnormally hot…

On June 3-7, it was recorded that the maximum temperature of three centuries was observed in Tashkent. On July 5, 7 and 8, record high temperatures were repeated in the capital.

The Minister of Social Affairs and Health of France, Annes Bousen, announced that the anomalous heat observed in the summer caused the death of 1,500 people.

Almost 500 people died in the Canadian province of British Columbia due to anomalous hot weather. The air temperature in the province has reached a record 49.6 degrees. Before that, the temperature in Canada did not exceed 45 degrees.

More than 8,000 people were hospitalized in Japan. Heat stroke due to the heat has been cited as the cause.

From each of these events, we can see how climate change is threatening humanity.

Experts predict that sea levels will rise for centuries, and what was once considered the "Flood of the century" could become an annual event within 80 years.

According to the research conducted by experts of the Cloud to Street company, the number of people affected by floods has increased by 24% since the beginning of the 21st century. This indicator is 10 times more than the forecast of scientists.

In Uzbekistan

Climate change is also causing a number of negative consequences in Uzbekistan: As a result of the increase in temperature, the increase in the evaporation coefficient of water affects the decrease and shortage of water resources in the regions. As a result of environmental stress, the number of days without precipitation is increasing throughout the year. Due to the decrease in soil moisture, the risk of repeated droughts is increasing and productivity indicators are falling; The decrease in the volume of water flowing into the Aral Sea accelerates the turning of the river delta into a desert and the emergence of new desert areas at the bottom of the dry sea. Pollination is increasing in large areas in atmospheric air.

Changes in anomalous phenomena such as warming and cooling lead to the death of agricultural products and fruits. Experts have given several recommendations to prevent climate change: reduce the use of fossil fuels and switch to renewable energy sources; increase energy efficiency and modernize industries with energy-saving technologies; increasing greenness in nature, preventing forest fires, increasing tree plantations; transition to environmentally friendly agriculture; preservation of organic substances in the soil (because their loss directly affects the greenhouse effect); transition to environmentally friendly modes of transport.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	Oct	Dec
Record high °C (°F)	9.43 (48.97)	10.25 (50.45)	18.17 (64.71)	24.69 (76.44)	31.89 (89.4)	36.63 (97.93)	39.09 (102.36)	37.19 (98.94)	31.99 (89.58)	23.6 (74.48)	14.27 (57.69)	9.66 (49.39)
Average high °C (°F)	5.71 (42.28)	6.79 (44.22)	15.31 (59.36)	22.36 (72.25)	29.23 (84.61)	34.07 (93.33)	36.59 (97.86)	34.92 (94.86)	29.37 (84.87)	20.78 (69.4)	11.63 (52.93)	6.38 (43.48)
Daily mean °C (°F)	2.68 (36.82)	3.77 (38.79)	2.01 (53.62)	8.97 (66.15)	25.85 (78.53)	30.77 (87.39)	3.01 (91.42)	1.03 (87.85)	5.3 (77.54)	17.01 (62.62)	.33 (46.99)	3.27 (37.89)
Average low °C (°F)	-1.34 (29.59)	-0.91 (30.36)	6.18 (43.12)	1.87 (53.37)	17.91 (64.24)	22.06 (71.71)	3.7 (74.66)	1.75 (71.15)	6.6 (61.88)	10.5 (50.9)	.62 (38.52)	-0.71 (30.72)
Record low °C (°F)	-7.12 (19.18)	-6.75 (19.85)	-0.68 (30.78)	.56 (38.41)	7.87 (46.17)	11.88 (53.38)	4.14 (57.45)	13.3 (55.94)	.3 (48.74)	5.01 (41.02)	-0.4 (31.28)	-5.02 (22.96)
Average precipitation mm (inches)	4.43 1.36)	51.98 (2.05)	49.6 (1.95)	46.57(1.83)	32.46 (1.28)	14.04 (0.55)	6.04 (0.24)	4.8 (0.19)	.16 (0.16)	19.76 (0.78)	32.57(1.28)	24.84 (0.98)
Average precipitation days (≥ 1.0 mm)	6.35	7.27	7.8	7.72	6.63	3.68	1.51	1.14	1.04	3.64	.95	4.68
Average relative humidity(%)	61.66	63.12	52.23	42.94	33.02	25.06	22.02	22.95	25.72	36.79	50.14	57.05

Climate Uzbekistan: Weather By Month

Moreover, if we look according to the cities of Uzbekistan, most regions (6) in Uzbekistan lie in the ***Mid-latitude steppe*** climate zone.

The main average of annual temperatures range from a high of 20.38°C (68.68°F) in Kashkadarya to a low of 13.23°C (55.81°F) in Samarkand.

SOLUTIONS

1. Speak up!

What is the biggest impact on global climate change? "Talk to your friends and family and make sure your representatives are making the right decisions," says Haq. By voicing your concerns via social media or directly to your elected officials , you are sending a message that you care about a warming world. Urge Congress to pass new laws that limit carbon emissions and require polluters to pay for the emissions they produce. "The main reason elected officials do anything difficult is because their constituents make them do it," Haq says. You can help protect public lands, stop offshore drilling, and more.

2.Power your home with renewable energy.

Choose a utility company that generates at least half from wind or solar and is certified by Green-e Energy. Go-green is an organization that investigates renewable energy opportunities. If this is not possible, consider the electricity bill; many utilities now list other ways to support renewables in their monthly statements and on their websites.

3.Reduce water waste

Saving water also reduces carbon pollution. This is because a lot of energy is required to pump, heat and clean water. So take shorter showers, turn off the faucet while brushing your teeth, and switch to WaterSense-labeled fixtures and appliances. The EPA estimates that if just one in 100 American homes were equipped with water-saving appliances, 100 million kilowatt-hours of electricity would be saved annually, preventing 80,000 tons of global warming pollution.

4.Buy better bulbs

LED light bulbs use one-sixth the energy to deliver the same amount of light as traditional incandescent bul and last at least 10 times longer. They're also cheaper in the long run: A 10-watt LED bulb rbseplacing your traditional 60-watt bulb will save you $125 over the life of it. And since the average American home has 40 to 50 light bulbs, it's a simple replacement that pays huge dividends. If every household in the United States replaced just one incandescent light bulb with an Energy Star-certified LED, we would

avoid seven billion pounds of carbon pollution annually. This is equivalent to the emissions of about 648,000 cars.

5.Drive a fuel-efficient vehicle

Smart gas cars like hybrids and all-electric vehicles save fuel and money. And if all cars and light trucks meet the 2025 clean car standards, which means an average of 54.5 miles per gallon, they'll be a mainstay. For good reason: Americans spend $80 billion less at the pump each year and cut vehicle emissions in half, compared to a national fleet average of just 28.3 miles per gallon in 2011. Before you buy a new set of wheels, compare fuel economy.

6.Reduce, reuse, and recycle.

The average person in the United States produces 4.5 pounds of trash every day. Fortunately, not everything we throw away ends up in a landfill; we recycle or compost more than a third of our trash. In 2014, this saved carbon emissions equivalent to the annual production of 38 million passenger cars. But we could do more. “Reduce should always come first,” says NRDC Senior Resource Specialist Darby Hoover. And to reap the environmental benefits of "recyclable" products, you must recycle according to your municipality's regulations, as systems vary greatly by location.

Conclusion

In conclusion, global warming poses a significant threat to the Earth's ecosystems and human well-being. Urgent action is required to mitigate greenhouse gas emissions and adopt sustainable practices to curb this alarming trend. By raising awareness, implementing policies, and transitioning to renewable energy sources, we can work towards a healthier and more sustainable future for generations to come.

The fact that climate indicators are getting worse every year can be attributed to the fact that humanity continues to use the Earth mercilessly. This process is considered by many countries as the biggest threat to security. The tragic events that have occurred around the world should give a strong enough impetus to the development of additional mechanisms for ensuring environmental security. Otherwise, it may be too late.

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