GLOBAL WARMING: THE ONGOING CRISIS OF CLIMATE CHANGE

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Annotation: *This article presents climate change is our planet's greatest existential threat. If we don't limit greenhouse gas emissions from the burning of fossil fuels, the consequences of rising global temperatures include massive crop and fishery collapse, the disappearance of hundreds of thousands of species, and entire communities becoming uninhabitable. While these outcomes may still be avoidable, climate change is already causing suffering and death. From raging wildfires and supercharged storms, its compounding effects can be felt today, outside our own windows.Understanding these impacts can help us prepare for what's here, what's avoidable, and what's yet to come, and to better prepare and protect all communities. Even though everyone is or will be affected by climate change, those living in the world's poorest countries—which have contributed least to the problem—are the most climate-vulnerable. They have the fewest financial resources to respond to crises or adapt, and they're closely dependent on a healthy, thriving natural world for food and income. As global temperatures climb, widespread shifts in weather systems occur, making events like droughts, hurricanes, and floods more intense and unpredictable. Extreme weather events that may have hit just once in our grandparents' lifetimes are becoming more common in ours. However, not every place will experience the same effects:*

Climate change may cause severe drought in one region while making floods more likely in another.

Key words: *climate, planet,ecosystem, atmosphere,gas emissions,carbon footprint, energy sources,water shortage*

Climate change, also referred to as global warming, is one of the most pressing issues facing our planet today. The Earth's climate is rapidly changing due to human activities, primarily the burning of fossil fuels and deforestation. These activities are causing an increase in greenhouse gases such as carbon dioxide, methane, and nitrous oxide in the atmosphere, leading to a warming of the planet. The consequences of climate change are far-reaching and devastating. Rising global temperatures are leading to more frequent and severe weather events such as hurricanes, droughts, and heatwaves. Sea levels are rising, threatening coastal communities and ecosystems. Glaciers are melting, leading to water shortages in many parts of the world. And species are facing extinction as their habitats disappear. Despite the overwhelming scientific consensus on the reality of climate change, there are still skeptics who deny its existence or argue that it is not caused by human activities. However, the evidence is clear: human activities are driving climate change, and urgent action is needed to address this crisis. Governments, businesses, and individuals all have a role to play in combating climate change. Policies must be put in place to reduce greenhouse gas emissions, transition to renewable energy sources, and protect and restore natural habitats. Individuals can also make a difference by reducing their carbon footprint, conserving energy, and advocating for stronger climate policies.The time to act is now. Every day that passes without meaningful action on climate change brings us closer to a point of no return. We must come together as a global community to address this crisis before it is too late. Our planet's future depends on it.

GLOBAL TEMPERATURES ARE RISING

Billions of tons of CO2 are released into the atmosphere every year as a result of coal, oil, and gas production. Human activity is producing greenhouse gas

emissions at a record high, with no signs of slowing down. According to a ten-year summary of UNEP Emission Gap reports, we are on track to maintain a "business as usual" trajectory. The last four years were the four hottest on record. According to a September 2019 World Meteorological Organization (WMO) report, we are at least one degree Celsius above preindustrial levels and close to what scientists warn would be "an unacceptable risk". The 2015 Paris Agreement on climate change calls for holding eventual warming "well below" two degrees Celsius, and for the pursuit of efforts to limit the increase even further, to 1.5 degrees. But if we don't slow global emissions, temperatures could rise to above three degrees Celsius by 2100, causing further irreversible damage to our ecosystems. Glaciers and ice sheets in polar and mountain regions are already melting faster than ever, causing sea levels to rise. Almost two-thirds of the world's cities with populations of over five million are located in areas at risk of sea level rise and almost 40 per cent of the world's population live within 100 km of a coast. If no action is taken, entire districts of New York, Shanghai, Abu Dhabi, Osaka, Rio de Janeiro, and many other cities could find themselves underwater within our lifetimes, displacing millions of people.

FOOD AND WATER INSECURITY

Global warming impacts everyone's food and water security. Climate change is a direct cause of soil degradation, which limits the amount of carbon the earth is able to contain. Some 500 million people today live in areas affected by erosion,while up to 30 per cent of food is lost or wasted as a result. Meanwhile, climate change limits the availability and quality of water for drinking and agriculture. In many regions, crops that have thrived for centuries are struggling to survive, making food security more precarious. Such impacts tend to fall primarily on the poor and vulnerable. Global warming is likely to make economic output between the world's richest and poorest countries grow wider. Climate scientists have showed that humans are responsible for virtually all global heating over the last 200 years. Human activities like the ones mentioned above are causing greenhouse gases that are warming the world faster than at any time in at

least the last two thousand years. The average temperature of the Earth's surface is now about 1.1°C warmer than it was in the late 1800s (before the industrial revolution) and warmer than at any time in the last 100,000 years. The last decade (2011-2020) was the warmest on record, and each of the last four decades has been warmer than any previous decade since 1850.Many people think climate change mainly means warmer temperatures. But temperature rise is only the beginning of the story. Because the Earth is a system, where everything is connected, changes in one area can influence changes in all others. The consequences of climate change now include, among others, intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity. Climate change can affect our health, ability to grow food, housing, safety and work. Some of us are already more vulnerable to climate impacts, such as people living in small island nations and other developing countries. Conditions like sea-level rise and saltwater intrusion have advanced to the point where whole communities have had to relocate, and protracted droughts are putting people at risk of famine. In the future, the number of people displaced by weather-related events is expected to rise.

Many climate change solutions can deliver economic benefits while improving our lives and protecting the environment. We also have global frameworks and agreements to guide progress, such as the Sustainable Development Goals, the UN Framework Convention on Climate Change and the Paris Agreement. Three broad categories of action are: cutting emissions, adapting to climate impacts and financing required adjustments.Switching energy systems from fossil fuels to renewables like solar or wind will reduce the emissions driving climate change. But we have to act now. While a growing number of countries is committing to net zero emissions by 2050, emissions must be cut in half by 2030 to keep warming below 1.5°C. Achieving this means huge declines in the use of coal, oil and gas: over two-thirds of today's proven reserves of fossil fuels need to be kept in the ground by 2050 in order to prevent catastrophic levels of climate change.

Climate change impacts on biodiversity

Global biodiversity is among the severe victims of CC because it is the fastest emerging cause of species loss. Studies demonstrated that the massive scale species dynamics are considerably associated with diverse climatic events. Ortiz et al. Both the pace and magnitude of CC are altering the compatible habitat ranges for living entities of marine, freshwater, and terrestrial regions. Alterations in general climate regimes infuence the integrity of ecosystems in numerous ways, such as variation in the relative abundance of species, range shifts, changes in activity timing, and microhabitat use. The geographic distribution of any species often depends upon its ability to tolerate environmental stresses, biological interactions, and dispersal constraints. Hence, instead of the CC, the local species must only accept, adapt, move, or face extinction. So, the best performer species have a better survival capacity for adjusting to new ecosystems or a decreased perseverance to survive where they are already situated. An important aspect here is the inadequate habitat connectivity and access to microclimates,also crucial in raising the exposure to climate warming and extreme heatwave episodes. For example, the carbon sequestration rates are undergoing fuctuations due to climate-driven expansion in the range of global mangroves .Similarly, the loss of kelp-forest ecosystems in various regions and its occupancy by the seaweed turfs has set the track for elevated herbivory by the high infux of tropical fish populations. Not only this, the increased water temperatures have exacerbated the conditions far away from the physiological tolerance level of the kelp communities . Another pertinent danger is the devastation of keystone species, which even has more pervasive efects on the entire communities in that habitat.

Psychological impacts of climate change

Climate change (CC) is responsible for the rapid dissemination and exaggeration of certain epidemics and pandemics. In addition to the vast apparent impacts of climate change on health, forestry, agriculture, etc., it may also have psychological implications on vulnerable societies. It can be exemplifed through the recent outburst of (COVID-19) in various countries around the world. Besides,

the victims of this viral infection have made healthy beings scarier and terrifed. In the wake of such epidemics, people with common colds or fever are also frightened and must pass specifc regulatory protocols. Living in such situations continuously terrifes the public and makes the stress familiar, which eventually makes them psychologically weak .CC boosts the extent of anxiety, distress, and other issues in public, pushing them to develop various mental-related problems. Besides, frequent exposure to extreme climate.catastrophes such as geological disasters also imprints posttraumatic disorder, and their ubiquitous occurrence paves the way to developing chronic psychological dysfunction. Moreover, repetitive listening from media also causes an increase in the person's stress level .Similarly, communities living in food-prone areas constantly live in extreme fear of drowning and die by foods. In addition to human lives, the food-induced destruction of physical infrastructure is a specifc reason for putting pressure on these communities. For instance,comprehensively denoted that Katrina's Hurricane augmented the mental health issues in the victim communities.

Climate change impacts on tourism

Tourism is a commercial activity that has roots in multidimensions and an efcient tool with adequate job generation potential, revenue creation, earning of spectacular foreign exchange, enhancement in cross-cultural promulgation and cooperation, a business tool for entrepreneurs and eventually for the country's national development . Among a plethora of other disciplines, the tourism industry is also a distinct victim of climate warming as the climate is among the essential resources that enable tourism in particular regions as most preferred locations. Diferent places at diferent times of the year attract tourists both within and across the countries depending upon the feasibility and compatibility of particular weather patterns. Hence, the massive variations in these weather patterns resulting from CC will eventually lead to monumental challenges to the local economy in that specifc area's particular and national economy . For instance, the Intergovernmental Panel on Climate Change (IPCC) report demonstrated that the global tourism industry had faced a considerable decline in the duration of ski

season, including the loss of some ski areas and the dramatic shifts in tourist destinations' climate warming.

In conclusion , global climate change is not a future problem. Changes to Earth's climate driven by increased human emissions of heat-trapping greenhouse gases are already having widespread effects on the environment: glaciers and ice sheets are shrinking, river and lake ice is breaking up earlier, plant and animal geographic ranges are shifting, and plants and trees are blooming sooner.Effects that scientists had long predicted would result from global climate change are now occurring, such as sea ice loss, accelerated sea level rise, and longer, more intense heat waves.Limiting the rising in global warming is theoretically achievable, but politically, socially, and economically difficult. Those same sources of greenhouse gas emissions must be limited to reduce warming. For example, oil and gas used to generate electricity or power industrial manufacturing will need to be replaced by net zero emission technology like wind and solar power. Transportation, another major source of emissions, will need to integrate more electric vehicles, public transportation, and innovative urban design, such as safe bike lanes and walkable cities.One global warming solution that was once considered far fetched is now being taken more seriously: geoengineering. This type of technology relies on manipulating the Earth's atmosphere to physically block the warming rays of the sun or by sucking carbon dioxide straight out of the sky.Restoring nature may also help limit warming. Trees, oceans, wetlands, and other ecosystems help absorb excess carbon—but when they're lost, so too is their potential to fight climate change. Ultimately, we'll need to adapt to warming temperatures, building homes to withstand sea level rise for example, or more efficiently cooling homes during heat waves. Climate change presents a fundamental threat to human health. It affects the physical environment as well as all aspects of both natural and human systems – including social and economic conditions and the functioning of health systems. It is therefore a threat multiplier, undermining and potentially reversing decades of health progress. As climatic conditions change, more frequent and intensifying weather and climate events are

observed, including storms, extreme heat, floods, droughts and wildfires. These weather and climate hazards affect health both directly and indirectly, increasing the risk of deaths, noncommunicable diseases, the emergence and spread of infectious diseases, and health emergencies.Climate change is also having an impact on our health workforce and infrastructure, reducing capacity to provide universal health coverage (UHC). More fundamentally, climate shocks and growing stresses such as changing temperature and precipitation patterns, drought, floods and rising sea levels degrade the environmental and social determinants of physical and mental health. All aspects of health are affected by climate change, from clean air, water and soil to food systems and livelihoods. Further delay in tackling climate change will increase health risks, undermine decades of improvements in global health, and contravene our collective commitments to ensure the human right to health for all.Climate change is impacting health in a myriad of ways, including by leading to death and illness from increasingly frequent extreme weather events, such as heatwaves, storms and floods, the disruption of food systems, increases in zoonoses and food-, water- and vector-borne diseases, and mental health issues. Furthermore, climate change is undermining many of the social determinants for good health, such as livelihoods, equality and access to health care and social support structures. These climate-sensitive health risks are disproportionately felt by the most vulnerable and disadvantaged, including women, children, ethnic minorities, poor communities, migrants or displaced persons, older populations, and those with underlying health conditions.Although it is unequivocal that climate change affects human health, it remains challenging to accurately estimate the scale and impact of many climate-sensitive health risks. However, scientific advances progressively allow us to attribute an increase in morbidity and mortality to global warming, and more accurately determine the risks and scale of these health threats.

The list of used literature

1. Al Gore "An Inconvenient Truth" (2006)

2. Abdurozikova, I. I., & Teshaboyeva, N. Z. (2023). The application of adjectives, as well as issues and solutions around their usage. *TECHNICAL SCIENCE RESEARCH IN UZBEKISTAN*, *1*(4), 296-299.

3. Elizabeth Kolbert "Field Notes from a Catastrophe: Man, Nature, and Climate Change" (2006)

4. Mark Maslin "Climate Change: A Very Short Introduction" (2014)

5. Mark Lynas "Six Degrees: Our Future on a Hotter Planet" (2007)

6. Nafisa, T. (2023). THE USA ECONOMY, INDUSTRY, MANUFACTURING AND NATURAL RESOURCES OF GREAT BRITAIN. *INTERNATIONAL JOURNAL OF RECENTLY SCIENTIFIC RESEARCHER'S THEORY*, *1*(9), 94-97.

7. Nafisa, T. (2023, December). Secondary ways of word formation. In *" Conference on Universal Science Research 2023"* (Vol. 1, No. 12, pp. 109-112).

8. Nafisa, T. (2023). VOWELS AND THEIR MODIFACATIONS. *Новости образования: исследование в XXI веке*, *2*(16), 298-305.

9. Nafisa, T. (2023, December). Secondary ways of word formation. In *" Conference on Universal Science Research 2023"* (Vol. 1, No. 12, pp. 109-112).

10. Nafisa, T. (2023). THE EDUCATION SYSTEM OF THE USA: PRESCHOOL EDUCATION, SECONDARY AND HIGHER EDUCATION, SCHOOL FORMS. *The Role of Exact Sciences in the Era of Modern Development*, *1*(6), 53-57.

11. Qizi, T. N. Z., & Umedovich, M. Y. (2023). AMERICAN-BASED PRONUNCIATION STANDARDS OF ENGLISH. *Scientific Impulse*, *2*(15), 563-567.

12. Nafisa, T. (2023, December). Word Formation: Compounding. In *" Conference on Universal Science Research 2023"* (Vol. 1, No. 12, pp. 113-115).

13. Nafisa, T. (2023). NOUNS AND THEIR GRAMMATICAL CATEGORIES. *Новости образования: исследование в XXI веке*, *2*(16), 292-297.

14. Ojha, D. D. R. (2023). Teshaboyeva Nafisa Zubaydulla qizi.

15. Nafisa, T. (2023). POLITICAL PARTIES IN GREAT BRITAIN. *Нововведения Современного Научного Развития в Эпоху Глобализации: Проблемы и Решения*, *1*(5), 97-101.

16. Nafisa, T. (2023). GOVERNMENTAL SYMBOLS OF GREAT BRITAIN; OUTSTANDING DATES OF GREAT BRITAIN. *The Role of Exact Sciences in the Era of Modern Development*, *1*(6), 23-26.

17. Nafisa, T. (2023). POLITICAL PARTIES IN GREAT BRITAIN. *Нововведения Современного Научного Развития в Эпоху Глобализации: Проблемы и Решения*, *1*(5), 97-101.

18. Qizi, T. N. Z., & Umedovich, M. Y. (2023). AMERICAN-BASED PRONUNCIATION STANDARDS OF ENGLISH. *Scientific Impulse*, *2*(15), 563-567.

19. Naomi Klean "This Changes Everything: Capitalism vs. The Climate" (2014)

20. Paul Hawken "Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming" edited (2017)