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Study The Effect of Climate Change On Living Being

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Abstract

Greenhouse gases (GHG), such as carbon dioxide, methane, nitrous oxide, and other gases, are considered to be the main cause of global climate change, and this problem has received significant global attention. Carbon dioxide has been considered the most significant gas contributing to global climate change. The stability and proper operation of the ecological and physical processes of the biosphere, which are often referred to as life-support systems, are essential to the continuing good health of people over the long term. Despite the fact that it is all too easy to dismiss this reliance, especially at a time when the human race is becoming more urbanized and distant from these natural systems, we do so at our own risk if we choose to reject this long-established historical reality. One of the many huge natural systems that are now coming under strain from the rising weight of human populations and economic activity is the climate system of the globe. This climate system is a vital aspect of the complex of life-supporting processes that exists on our planet. The natural greenhouse effect on Earth has already started to be amplified as a result of human activities, which have unwittingly increased the concentration of energy-trapping gases in the lower atmosphere. The primary problem with greenhouse gases is their contribution to climate change by trapping heat in the atmosphere. This leads to a warming planet with various impacts, including rising sea levels, more extreme weather events, and disruptions to ecosystems or living beings.

Key Words: Climate Change, Living Beings, Global Warming, Greenhouse Gases

Introduction

Climate change is recognised today as the biggest public health challenge of the twenty first century, threatening to undo decades of gains in public health (Costello et al., 2009). 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 (McMichael, 1996). Through the United Nations Framework Convention on Climate Change (UNFCC), national governments have made a commitment in principle to working toward achieving this result. In actual fact, it is proving to be difficult to discover a course of action that is politically acceptable; this is typically the case due of apprehensions about probable short-term repercussions on the economy.

(CBHI, 2018) Global climate change effects on living organisms so it is very necessary that how human societies should react. These responses should include adaptation methods to mitigate the impacts, as well as collective action to limit greenhouse gas emissions. The expected exceptionally fast pace of change in climatic conditions is the source of a significant portion of the consequent danger to human populations and the ecosystems upon which they rely (IM D, 2010). In point of fact, the possibility of such a shift has prompted a significant amount of new scientific investigation over the course of the last decade. A significant portion of this study is aimed at illuminating the intricate ecological disruptions that may have an effect on the well-being and health of humans, as will be shown in the following example. Recent research conducted by the United States Global Change Research Program has provided evidence of the ways in which the diverse impacts of climate change on aquatic ecosystems may interact with one another and ripple through trophic levels in ways that are unanticipated. For instance, as a result of global warming, the quantity of sea ice in the Arctic area has decreased, which has a negative impact on the rates of survival for walrus and seal pups that spend a portion of their life cycle on the ice. As there are now fewer seal pups available, sea otters have taken over as the primary source of food for whales. Because there are now fewer sea otters, the population of sea urchins is growing, and they are eating more of the kelp that is essential for the reproduction of fish. This has led to a decline in the number of fish. Less fish in the environment contributes to the continued reduction of walrus and seal populations. The Yupik Eskimos of the Arctic, who depend on all of these species for sustenance, are facing a general decrease in the availability of food.

Effect of climate change

The wide range of risks to human health posed by the environment now includes the more severe effects of climate change on the planet as a whole. Although the majority of its health repercussions contain increases (or reductions) in the well-known effects of climate variation on human biology and health, the global scale contributes to a sense of unfamiliarity about these effects (Dettman 2019). For a very long time, the primary emphasis of traditional environmental health concerns has been on the toxicological or microbiological dangers to human health posed by exposures to local environments (WHO 2008). However, in the early years of the twenty-first century, a variety of larger-scale environmental risks to human health have evolved. This is because the expanding human effect on the environment continues to modify the geological, biological, and ecological systems of the globe. These include the health risks posed by the depletion of stratospheric ozone, loss of biodiversity, stresses on terrestrial and ocean food-producing systems, changes in hydrological systems and the supplies of freshwater, and the global dissemination of persistent organic pollutants, in addition to global climate change.

The most well-known examples of these diverse shifts in the global environment are climate change and the loss of ozone in the stratosphere. However, human cultures have had a long history of experiencing the vagaries of climate (Grundmann, 2007), climatic cycles have left significant fingerprints and scars on the annals of human history. Civilizations such as that of ancient Egypt and Mesopotamia, the Mayans, the Vikings in Greenland, and European people during the four centuries of the Little Ice Age have all both profited and suffered as a result of nature's grand climatic cycles. Other examples include

the Mayans. The more intense, inter-annual, quasi-periodic ENSO (El Nio Southern Oscillation) cycle has also been shown to be the cause of massive disease outbreaks, social upheaval, and natural calamities, according to historical assessments. The degradation of soil fertility and freshwater supplies, as well as the mismanagement of water catchment basins caused by excessive deforestation, have all contributed, over the course of many millennia, to the reduction of people in a number of different regions.

Greenhouse gases and climate change

Climate experts now believe that an increase in the production of greenhouse gases by people will lead to a shift in the world's climate that is long-term in nature. These gases are mostly composed of carbon dioxide (mainly as a result of the combustion of fossil fuels and the burning of forests), in addition to a variety of other heat-trapping gases such as methane (primarily as a result of irrigated agriculture, animal husbandry, and oil extraction), nitrous oxide, and numerous halocarbons that are the result of human activity. In point of fact, the majority of climate experts today have the strong suspicion that the buildup of these gases in the lower atmosphere has been a contributing factor in the significant recent increase in the average temperature of the planet. The global average surface temperature rose by around 0.6 degrees Celsius during the course of the twentieth century. During this historical period, there were certainly natural impacts on the climate all around the planet.

These include a slight overall increase in solar activity in the first half of the century, which may have accounted for approximately one-sixth of that century's observed temperature increase; and an increase in volcanic activity between 1960 and 1991 (when Mount Pinatubo erupted), which induced a net negative natural radiative forcing for the last two (up to possibly four) decades. The global warming that occurred in the twenty-first century caused the average surface temperature of the Earth to rise over the long-standing historical limit of the amplitude of naturally occurring changes (Liu, et. al., 2017). Climatologist believe that increasing atmospheric concentration of carbon dioxide and other “greenhouse gasses” released by human activities, such as burning of fossil fuels and deforestation, are warming the Earth. The mechanism is commonly known as the “greenhouse effect” is what makes the Earth habitable.

These gasses in the atmosphere act like the glass of a greenhouse, letting the sunlight in and preventing heat from escaping. But the human activities have altered the chemical composition of the atmosphere through the buildup of greenhouse gases-primarily carbon dioxide, methane, and nitrous oxide. An extensive worldwide scientific effort to evaluate the data has been driven by the unprecedented possibility of fast changes brought about by human activity to the climate of the whole planet (Seater1993). Established within the framework of the United Nations in 1988, the Intergovernmental Panel on Climate Change (IPCC) was given the responsibility of advising national governments on the causes and processes of climate change, as well as expected repercussions and the related costs, and strategies to decrease the impact of these changes. According to the projections made in the Third Assessment Report (2001) of the IPCC, the average temperature of the world's surface would rise by between 5.4 and 5.8 degrees Celsius during the course of the twenty-first century (see Figure 5.1). This assessment, which has a high margin of error, was derived from a large number of distinct global climate models as well as a variety of feasible

scenarios of greenhouse gas and sulphate aerosol precursor emissions. These hypothetical futures include various courses of events in terms of demographics, economies, political systems, and technology advancements. If the temperature were to rise anywhere within this range, it would do so at a rate that is far faster than any naturally occurring temperature rise that humans have encountered since the beginning of agriculture, which occurred around 10,000 years ago.

Conclusion

Climate change is affecting every aspect of life. It is recognized as a serious threat to ecosystem, biodiversity, and health. According to scientists, we have approximately a decade to keep carbon dioxide from reaching catastrophic levels that can cause irreversible damages. If no efficient preventive action is undertaken, by the year 2050, 15 to 37% of existing plant and animal species are predicted to become extinct and by the year 2100, half of all species may experience extinction. Climate change impacts can be mitigated by reducing greenhouse gas emissions and by enhancing the capacity of Earth's land surface to absorb greenhouse gases from the atmosphere.

Long-term investment in renewable energy and energy efficiency is urgently needed. Climate change seriously affects the viability of many plant and animal species, and human health. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) releases regular reports on biodiversity written by hundreds of experts from all regions of the world. The reports found that biodiversity is declining in every region of the world, endangering economies, livelihoods, food security, and quality of life. In the words of the IPBES chair, "the time for action was yesterday or the day before".

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