CLIMATE CHANGE: TEMPERATURES ON EARTH CONTINUE TO RISE

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BACKGROUND

The balanced carbon exchange between the Earth's surface and atmosphere offers the planet's habitability. This balance constantly varies due to expansion of agriculture, industrialization, deforestation, and anthropogenic burning of fossil fuels, like gas, coal and oil, which triggers variations in the Earth's climate system.

OBJECTIVES

Understanding the development of the biosphere and the dependence of health and well being on natural systems displaying the importance of environmental health issues such as global climate change.

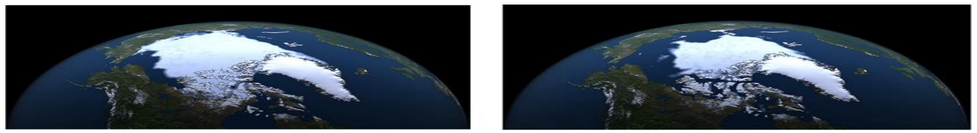
MATERIALS & METHODS

A Literature review reevaluated data from twelve well-cited articles in the climate impacts literature, which ascertain impacts on numerous components, including agricultural yield, health impacts, economic development, and civil concerns.

RESULTS

The impacts of global climate change result in recurring wildfires, extended events of drought, upsurges of tropical storms, shrinking glaciers, sea elevation, broken up lakes, modified ranges of plants and animals and plants flowering prematurely. Global climate change has also caused negative effects on human health, and lengthier, more severe heat waves. The climate change expenses are expected to rise throughout time. The heat trapping, also known as greenhouse gas of carbon dioxide is emitted via human behaviors including fossil fuel burning and deforestation, as well as through natural means such as volcanic eruptions and respiration. Human activities, which raise atmospheric carbon dioxide levels and heat trapping gases, may cause heating or cooling impacts on the atmosphere.

FIGURE 1. – ANNUAL ARCTIC SEA ICE MINIMUM FROM 1979 AND 2015



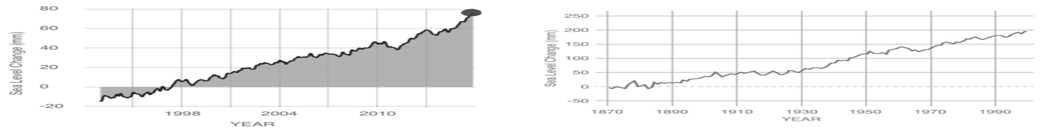
(Left) Annual Arctic sea ice minimum of 1979. (Right) Annual Arctic sea ice minimum of 2015. [NASA Goddard Space Flight Center]

FIGURE 2. – CLIMATE CHANGE IN RELATION TO LEVELS OF ATMOSPHERIC CARBON DIOXIDE



(Left) Monthly measurements of atmospheric CO_2 levels from 2005 to present. (Right) CO_2 levels throughout the previous three glacial cycles as reconstructed from ice cores. [NASA Goddard Space Flight Center]

FIGURE 3. – CLIMATE CHANGE CORRELATED TO SEA LEVEL RATES OF CHANGE



(Left) Variation in sea level from the year 1993 to present day, with an increase of 3.42 mm per year. (Right) Coastal tide gauge data levels displaying quantity of sea level changing from 1870 to 2000. [NASA Goddard Space Flight Center]

CONCLUSION

Environmental health issues should be described by means of methods understood by the general public. Humans, wildlife and vegetation are obligated to adapt to the impacts of climate change to survive, as well as protecting and preserving their habitats to prevent further damage from occurring. Critical health impacts may be decreased or evaded through adaptation and modification of behaviors. Further studies regarding global climate change should include the impacts of coinciding increases in carbon dioxide as well as temperature taking place on major crops, animals and human health. Additional studies must be conducted to report the methods to mitigating the impacts of global climate change.

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