ASSESSMENT OF GLOBAL WARMING AND HUMAN HEALTH IN AKWA IBOM STATE

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ABSTRACT

The study was carried out to assess the global warming and human health in Akwa Ibom State. The paper provided the concept of global warming noting that it is a phenomenon of climate change characterized by a general increase in the average temperatures of the Earth, which has modified the weather balances and ecosystems for a long time. It also gave an explanation of the concept of Human health as the state of being free from illness or injury. It also reviews that global warming endangers biodiversity, the oceans, humans, and the weather. However, the effect of global warming in human health have increased global warming can also pose a threat to national security, affecting food security, which, in turn, can lead to resource conflicts. As regards the controls and remedies to global warming is believed to be the result of a strengthening of the greenhouse effect, mostly due to human-produced increases in atmospheric greenhouse gases. The study concluded that human health has always been influenced by global warming. Changes in climate and climate variability, particularly changes in weather extremes, affect the environment that provides us with clean air, food, water, shelter, and security. Global warming, together with other natural and human-made health stressors, threatens human health and well-being in numerous ways. Human activities, through changes in land use, burning of fossil fuels, deforestation and an increase in population, are responsible for the accumulation of greenhouse gases in the atmosphere that result in global warming. One of the recommendations made was that the government should make policy priority of protecting health from global warming and establish a plan for addressing and mitigating the public health hazard.

KEYWORDS: Global Warming, Human Health and Akwa Ibom State

Introduction

Global warming is always changing and will continue to change throughout the earth's history. However, the current global warming, which started in the late 1960s, has occurred at an alarming speed and is largely attributed to human health. As communities try to improve their living standards, with the concomitant modernization of urban and rural environments through the provision of infrastructure, pressure is exerted on the earth's resources, especially fossil fuel and forest resources (Ekpoh, 2015). Human health has always been influenced by global warming. Changes in climate and climate variability, particularly changes in weather extremes, affect the environment that provides us with clean air, food, water, shelter, and security. Global warming, together with other natural and human-made health stressors, threatens human health and well-being in numerous ways (Balbus, Crimmins, Gamble, Easterling, Kunkel, Saha, & Sarofim, 2016). Human activities, through changes in land use, burning of fossil fuels, deforestation and an increase in population, are responsible for the accumulation of greenhouse gases in the atmosphere that result in global warming.

Global warming is now compromising the sustainability of human health on the planet because it threatens the ecological support systems on which life depends (Nwoke, Nwoke, & Ukpai, 2009). Human activities have increased greenhouse gases such as carbon dioxide, methane, and nitrous oxide in the Earth's atmosphere, which has resulted in an increased average temperature. The effects of rising temperatures include soil degradation, loss of productivity of agricultural land, desertification, loss of biodiversity, degradation of ecosystems, reduced fresh-water resources, acidification of the oceans, and the disruption and depletion of stratospheric ozone (Rossati, 2017). All these have an impact on human health, causing non-communicable diseases such as injuries during natural disasters, malnutrition during famines, and increased mortality during heat waves due to complications in chronically ill patients. Because the effects of global warming are expected to worsen over the next century, existing health problems may become more severe, and new health threats may develop. Connecting our understanding of how global warming is changing with an understanding of how those changes may affect human health might help us make better judgments about minimizing future global warming.

Concept of Global Warming

Global warming is a phenomenon of climate change characterized by a general increase in the average temperatures of the Earth, which has modified the weather balances and ecosystems for a long time. It is directly linked to the increase of greenhouse gases in our atmosphere, worsening the greenhouse effect (Solar Impulse Foundation, 2022). Global warming is the long-term heating of the Earth’s climate system observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in the Earth’s atmosphere (NASA 2021). Global warming is an increase in the earth's average atmospheric temperature that causes corresponding changes in the climate and may result from the greenhouse effect. Global warming is just one aspect of climate change (United States Geological Survey 2020). Global warming refers to the rise in global temperatures due mainly to the increasing concentrations of greenhouse gases in the atmosphere. According to Merriam-Webster (2021), global warming refers to an increase in the earth's atmospheric and oceanic temperatures widely predicted to occur due to an increase in the greenhouse effect resulting especially from pollution.

Global warming is the gradual increase in the earth’s temperature, generally due to the greenhouse effect caused by increased levels of carbon dioxide, CFCs, and other pollutants. Mann (2020) noted that these data indicate that Earth’s climate has changed over almost every conceivable timescale since the beginning of geologic time and that the influence of human activities since at least the beginning of the Industrial Revolution has been deeply woven into the very fabric of climate change. Global warming is the gradual increase in the earth’s temperature that is generally due to the greenhouse effect caused by increased levels of carbon dioxide, CFCs, and other pollutants (BYJUS 2021). This change has disturbed the climatic pattern of the Earth. However, the concept of global warming is quite controversial, but scientists have provided relevant data in support of the fact that the earth's temperature is rising constantly. The National Geographic Society (2019) stated that global warming is also a long-term warming of the planet’s overall temperature. Though this warming trend has been going on for a long time, its pace has significantly increased in the last hundred years due to the burning of fossil fuels.

Concept of Human Health

Human health is the state of being free from illness or injury. It can include a variety of topics, such as a healthy diet, a healthy weight, dental health, personal hygiene, and sleep. Human health refers to the complete state of physical, social, and mental well-being and not merely the absence of illness, disease, or infirmity. It is as vital a resource as water, food, or energy (Adegoke & Wright, 2013). Human health is defined as the well-being of the body and the proper functioning of an individual's organism, which is a normal state for people in both physical and mental health who are not ill. Human health refers to being able to live comfortably enough to do the things that you want to do (Nishat, 2021). The more accurate definition of human health could be the ability to perform daily tasks and live comfortably in one's body. Human health refers to the state of positive health that implies the notion of perfect functioning of the body and mind. It includes all the three aspects that are in a perfect state and include biological, psychological, and social (Rai, 2016). Human health might have been understood as your physical body being free of disease or disability, but as healthcare has improved and people have started living longer and living with many different conditions, this definition has really evolved to reflect that concept.

The word "human health" refers to the complete emotional and physical well-being of an individual. Human health exists to help individuals maintain their optimal state of health. According to Health Knowledge (2019), human health can be considered in terms of a person's body structure and function and the presence or absence of disease or signs (health status); their symptoms and what they can and cannot do, i.e., the extent to which the condition affects the person's normal life (quality of life). Human health is an individual's relative level of wellness, taking into account the presence of biological or physiological dysfunction, symptoms, and functional impairment (American Thoracic Society, 2007). Human health refers to a person who has good physical health and is likely to have bodily functions and processes working at their peak. Human health is only due to the absence of disease. Regular exercise, balanced nutrition, and adequate rest all contribute to good health. People receive medical treatment to maintain the balance when necessary. According to the Centers for Disease Control and Prevention (2017), human health involves pursuing a healthy lifestyle to decrease the risk of disease. Maintaining physical fitness, for example, can protect and develop the endurance of a person's breathing and heart function, muscular strength, flexibility, and body composition.

Dangers of Global Warming

The dangers of global warming each year have been learned by scientists, and there is new evidence of its devastating impact on people and the planet. Global warming endangers biodiversity, the oceans, humans, and the weather.

Biodiversity: The increase in temperatures and the climate upheavals disturb the ecosystems, modify the conditions and cycles of plant reproduction. The scarcity of resources and climate change are changing life habits and migratory cycles of animals. We are already witnessing the disappearance of many species, including endemic species, or conversely, the intrusion of invasive species that threaten crops and other animals. Global warming therefore impacts biodiversity. It is the balance of biodiversity that is being modified and threatened. According to

the IPCC, a 1.5°C (34.7°F) average rise might put 20–30% of species at risk of extinction. If the planet warms by more than 2°C, most ecosystems will struggle.

Oceans: Because of global warming, permafrost and ice are melting massively at the poles, raising the sea level at a rate never known before. In the last century, the increase reached 18 cm (including 6 cm in the last 20 years). The worst-case scenario is a rise of up to 1m by 2100. Acidification of the oceans is also of great concern. In fact, the large amount of CO2 captured by the oceans makes them more acidic, arousing serious questions about the adaptability of seashells or coral reefs.

Humans: Human beings are not spared by these upheavals. Climate change is affecting the global economy. It is already shaking up social, health, and geopolitical balances in many parts of the world. The scarcity of resources like food and energy gives rise to new conflicts. Rising sea levels and floods are causing population migration. Small island states are in the front line. The estimated number of climate refugees by 2050 is 250 million people.

Weather: For decades now, meteorologists and climatologists around the world have been watching the effects of global warming on the weather phenomena. And the impact is huge: more droughts and heatwaves, more precipitation, more natural disasters like floods, hurricanes, storms, wildfires, frost-free season, etc.

Effect of Global Warming in Human Health

Increased global warming can also pose a threat to national security, affecting food security, which, in turn, can lead to resource conflicts. The Intergovernmental Panel on Climate Change (IPCC) states that the increase in global atmospheric concentration of carbon dioxide (CO2) is primarily due to fossil fuel use and, to a lesser but still significant level, to land-use change (Kasotia, 2020). An Inconvenient Truth has also drawn public attention to the critical issue of global warming and how the burning of fossil fuels has increased the amount of CO2 in the atmosphere. Global warming can result in many serious alterations to the environment, eventually impacting human health. It can also cause a rise in sea level, leading to the loss of coastal land, a change in precipitation patterns, increased risks of droughts and floods, and threats to biodiversity (Kasotia, 2020). Besides the visible effects on people's livelihoods, global warming is predicted to have a strong and adverse impact on human health. The populations of countries that have contributed the least to global warming are the most vulnerable to death and diseases brought about by higher temperatures. The World Health Organization (2005) reports that global warming is responsible for at least 150,000 deaths per year, a number that is expected to double by 2030. The effects of global warming will cause dire health consequences for humans, like:

Infectious diseases: The IPCC predicts that global warming will worsen human health conditions, especially in tropical regions. In places like Africa, an increase in temperature signifies an increase in mosquito populations, thus escalating the risk of malaria, dengue and other insect-borne infections. Other regions are also affected. The United States experienced varying levels of malaria outbreaks; in 2006, the United Kingdom was plagued by an outbreak of legionnaires' disease--a bacterial lung infection that scientists attribute to global warming. The WHO states that global warming will also cause a major increase in insect-borne diseases in Europe. Countries like Azerbaijan, Tajikistan, and Turkey might already be in the danger zone

for mosquito-borne malaria. However, the ability to tolerate temperature changes differs from region to region. Richer societies can utilize technological advances to minimize heat retention. For example, the use of more powerful air conditioners and the construction of houses can minimize heat retention. On the other hand, developing countries lack not only the technological know-how, but also the resources and public health systems required to prevent such outbreaks.

Heatwaves: Prolonged periods of abnormally high temperatures can have serious health effects on vulnerable populations, such as the elderly and the sick. This was already seen during the 2003 heatwave in Europe, which claimed approximately 35,000 lives. In a study by the Hadley Center for Climate Prediction and Research in the United Kingdom, scientists using computer models showed how greenhouse gas emissions have increased the likelihood of heatwaves. The most common human health effect is hyperthermia, or heatstroke, which can be fatal if left untreated. The IPCC predicts that global warming will lead to hot days followed by nights of high temperatures.

Loss of agricultural productivity: Global warming can result in droughts that can worsen living conditions, particularly in Africa. The World Wild Fund has reported that climate change can drastically alter rainfall patterns and risk water and food supplies for millions. The IPCC report estimates that approximately 75 million to 250 million people in Africa will be without adequate water and will face food shortages by 2020, as crop productivity will decline by about 50 percent. Rising temperatures could also result in food shortages for 130 million people in Asia.

Asthma and other respiratory diseases: People suffering from heart problems are more vulnerable to increased temperatures, especially those living in already warm areas, as their cardiovascular systems must work harder to keep their bodies cool. Hot temperatures increase the ozone concentration, which can damage people's lung tissue and cause complications for asthma patients and those with lung diseases.

Controls and Remedies to Global Warming

Global warming, the recent warming of the Earth's surface and lower atmosphere, is believed to be the result of a strengthening of the greenhouse effect, mostly due to human-produced increases in atmospheric greenhouse gases. According to Mondal, (2021), if we sacrifice the unnecessary luxuries in our life, we can contribute to controlling the tremendous amount of energy that goes into their production. Resorting to the control of global warming can help to curb the problem to a significant extent. There are numerous ways to control global warming, which are:

Reuse and Recycle Products: Reusing and recycling various products that we use in our day-to-day lives can also help you do your bit to stop global warming. For instance, recycling paper will make sure that the large-scale felling of trees to produce paper is stopped, and these trees will in turn absorb the carbon dioxide in the atmosphere and reduce global warming.

Plant More Trees and Stop Contributing to Deforestation: This is by far the easiest way to save our planet from the hazards of global warming. Global warming can be attributed to the large-scale concentration of carbon dioxide in the atmosphere. That being said, planting trees can

help in absorbing this harmful gas, helping in regulating its amount in the atmosphere and helping in preventing global warming by lessening the greenhouse effect.

Become a Responsible Citizen: This is the most important of the various measures to curb global warming. We need to acknowledge the fact that we are responsible for this menace to a great extent. Even just implementing the simple steps to stop global warming mentioned above can make a huge difference. You can also come up with your own novel ways to contribute to this cause.

Promote the use of organic products: Promoting the use of organic foods is also one of the most effective ways to control global warming. The tendency of organic soils to capture carbon dioxide far exceeds that of the soil used in conventional farming. Estimates suggest that we can get rid of 580 billion lbs of carbon dioxide if we resort to organic farming for food production.

Resort to Alternative Sources of Energy: One of the most talked about global warming solutions is to switch to alternative energy sources such as solar power and wind power. You can easily harness these sources of nature to generate power and replace fossil fuels with them. Doing away with fossil fuels alone will not help in reducing the huge amount of carbon dioxide in the atmosphere every day.

Conclusion

The study concluded that human health has always been influenced by global warming. Changes in climate and climate variability, particularly changes in weather extremes affect the environment that provides us with clean air, food, water, shelter, and security. Global warming, together with other natural and human-made health stressors, threatens human health and well-being in numerous ways. Human activities, through changes in land use, burning of fossil fuels, deforestation and an increase in population, are responsible for the accumulation of greenhouse gases in the atmosphere that result in global warming.

Recommendation

1. The government should make policy priority of protecting health from global warming and establish a plan for addressing and mitigating the public health hazard.
2. The government should adopt preventive measures that have short-term ancillary health benefits and enhance long-term environmental sustainability for humans.
3. Climate scientists should advise governments to reduce greenhouse gas emissions instead of battling the existing realities.

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