

# Environmental Science Essay Example

## Introduction

Human demographics have been dynamic over centuries. These changes are influenced by the kind of environment people live in. As people are undertaking various activities of sustaining their life, it impacts on their environment. The impacts of human activities bring about environmental changes, among them been global warming. The mutual dependence between human life and the environment remained unearthed, until the 21st century when Global warming was noted. Global warming, also noted as climatic change, has been a world threat over the last five decades. This has prompted further research to establish its cause and mitigation measures that can be employed to curb its devastating impacts on the environment and human life. The study seeks to define the aspect of global warming in dimensions of the cause, its effects and proposed applicable measures that can be put in place.

## Background

Over the years, various parts of the globe have experienced a significant rise in temperatures. A geographical study shows that the temperatures on the Earth are increasing every decade at a rate of 0.7%<sup>+</sup>. This has been evident in cases of melting ice and glaciers, which has culminated to the rise in sea level. In an attempt to explain the dynamics of global warming, research has been conducted to evaluate the global climatic change. A normal rotation and orbiting of the earth around the sun, it seems to pick with it more heat. The element of increased heat explains the rhythms of the climatic changes and how living things have been subject to suffer. The aspect of global warming, as the name states: 'global' is universal. Its effects spread to all the corners of the globe, affecting the climatic patterns, vegetation. The paper seeks to establish the causes, effects and control measures of global warming.

## Research Claim

The research claims that human activities are the major causes of global warming. Although there are other natural causes, much of the climatic change is influenced by increasing population that has increased the impacts of human activities on the environment. Research shows that global warming can only be mitigated by controlling the effects of human activities on the environment.

## **Research questions**

The research will attempt to answer the following questions:-

1. What are the causes of global warming?
2. What are the effects of global warming on the environment and human activities?
3. In which ways can global warming be controlled?

## **Discussion**

### **Causes of global warming**

Global warming is as a result of too much accumulation of carbon dioxide in the earth's atmosphere. This acts as a natural blanket that traps the heat, warming up the earth's atmosphere. Human activities emitting carbon dioxide have led to this accumulation. The use of fossil fuels has increased with the aspect of industrialization. Coal, oil and natural gases have been put to much use to provide energy for the growing industrial sector. The use of these products has also been increased by growing population and technology. In the urge to meet the needs of the population, human beings have devised various machines that use the fossil fuels as sources of energy. These emit large portions of has grown. The forests which could have consumed the carbon gases have been cleared to create land for human settlement and economic activities such as mining and farming. Large amounts of chlorofluorocarbons are emitted by fossil power plants, use of machinery among other human activities such as mining. Besides trapping the heat, they destroy the ozone layer, allowing excessive sunrays to access the earth's atmosphere hence building up to the greenhouse effect. CO<sub>2</sub> as a byproduct. With the growing population, the need for land use

Another cause of global warming is natural. Volcanic eruptions emit aerosol and solids to the atmosphere. The aerosol composts of sulfur dioxide (SO<sub>2</sub>) and carbon dioxide (CO<sub>2</sub>). These gases destroy the ozone layer, allowing violent ultra-radiations from the sun to penetrate the earth's atmosphere. This can be supported by Mount Tambora volcanic eruption in 1816 that led to a distortion of the climatic patterns 'year without summer. The variation in solar radiation is a geographical phenomenon that scientists associate it with global warming. There are various sunspots around the sun, all with varying temperature. Approximately, the sunspots switch from maximum to minimum in an average of 11 years. The maximum sunspots are associated with global warming.

### **Effects of global warming**

The effects of global warming revolve around climatic change. The rise in temperatures has led to excessive melting of ice and glacier. The rate of polar ice melting has escalated, leading to a significant rise in the sea level. The melting ice flowing to oceans desalinate the ocean waters, creating a change in the water temperatures and current. Cases of the tsunamis have been associated with climatic change. Evaporation is catalyzed by the excess heat in the atmosphere, resulting in hurricanes, storms, and floods. This is however uneven, as other parts of the globe experience prolonged droughts, loss of plant and animal life by the excess heat. The weather patterns have drastically changed to unpredictable states over time. The rainfall and snow patterns are no longer subsequent.

The extremes of these effects have been evident in human life. Climatic phenomenon such as drought, storms, heat waves floods, and hurricanes has caused devastating loss of property and life. Over 10,000 people die every year because of hurricanes and tropical storms. This number is expected to escalate with increased frequency of the storms. Hurricanes such as Katrina, Dennis, Cindy, Ophelia, Rita and Wilma among others have recorded tremendous damage on property, sweeping across the beaches to the mainland. In 2017, the highest record of hurricanes was recorded, with Irma and Jose causing devastating impacts that caused deaths of thousands. Although human beings have engaged in control measures to mitigate the destruction and loss caused by the global warming, the destructive nature of land and wildlife is yet uncontrollable. The rate of wildlife extinction from drought, floods, and hurricanes among other natural calamities brought about by global warming has escalated over the last decade. Climatic change, pollution, and deforestation associated with global warming have increased the rate of animal and plant species to 114 times the normal extinction rate.

## **Control measures**

Based on the fact that global warming is associated with human activities, controlling the human activities that emit carbon gases to the atmosphere stands a better chance to control global warming. Speaking up is the first step. There is need to create global awareness on the devastating impacts of global warming. Creation of international awareness will prompt the imposition of international laws that govern the use of fossil fuels and environmental pollution. Renewable sources of energy have relatively zero impact on the environment. People should be encouraged to embark on Green energy sources such as biogas, solar power and hydroelectric power as alternatives to natural gases, petroleum, and coal. The use of Charcoal has a double effect on the environment, through deforestation and carbon emission. Using alternative sources of energy will reduce the carbon emissions to the atmosphere.

However, the use of green energy may not be applicable in some cases like cars and other machines. This will require controlled usage to ensure that the carbon released is trapped and converted before being emitted to the atmosphere. The use of green energy is the new campaign towards mitigating carbon emissions and global warming. Reforestation will, however, crown it all. Planting of trees will help in consuming the released carbon dioxide to manageable levels that will not harm the ozone layer. As a way of championing the reforestation, companies, and product releasing carbon dioxide, including gasoline and fossil plants should be taxed heavily to

provide funding for reforestation activities. Shrinking the carbon profile will reduce the greenhouse effects caused by the carbon emissions.

## **Conclusion**

Global warming is an international call that needs to be addressed urgently before its devastating effects bring the entire globe to extinction. Although its causes range from natural to human, human activities have the largest contribution to this through carbon emission. The temperatures are expected to rise by 8 degrees in the next one century. However, the green energy alternative gives hope towards mitigating the effects of global warming. Shrinking the carbon profile will help save the world from global warming and bring climatic patterns, biodiversity and live back to normality.