# Climate change essay example

**Environment, Climate Change** 



Climate change a change in the climatic conditions on the Earth. This is caused due to various internal and external factors including solar radiation, variation in the Earth's orbit, volcanic eruptions, plate tectonics, etc. Climate change, in fact, has become a cause of concern particularly over the last few decades. Change in the pattern of the climate on the Earth has become a global cause of concern. There are many factors that lead to climate change and this change affects the life on the Earth in various different ways.

# Long and Short Essays on Climate Change in English Here are some essay on Climate Change of varying lengths to help you with the topic in your examination. You can select any climate change essay as per your need:

# **Climate Change Essay 1 (200 words)**

Climate change is basically a change in the pattern of the climate that lasts for a few decades to centuries. Various factors lead to the changes in the climatic conditions on the Earth. These factors are also referred to as forcing mechanisms. These mechanisms are either external or internal.

External forcing mechanisms can either be natural such as the variation in the Earth's orbit, variation in solar radiation, volcanic eruptions, plate tectonics, etc or can be caused due to human activities such as green house gases, carbon emission, etc. Internal forcing mechanisms, on the other hand, are the natural processes that occur within the climate system. These include the ocean- atmosphere variability as well as the presence of life on the earth.

Climate change is having a negative impact on the forests, wildlife, water systems as well as the polar region on the Earth. A number of species of plants and animals have gone extinct due to the changes in the climate on the Earth and several others have been affected adversely.

Human activities such asdeforestation, use of land and use of methods that lead to the increase in carbon in the atmosphere have been a major cause of climate change in the recent past. It is important to keep a check on such activities in order to control climatic changes and ensure environmental harmony.

## Climate Change Essay 2 (300 words)

As the name suggests, climate change is a change in the climatic conditions on the Earth. Several factors contribute towards this change since centuries. However, the more recent ones that are mainly a result of human activities are having a negative repercussion on the atmosphere.

Researchers continually observe the pattern to understand the past, present as well as the future climatic conditions. A record of the climate has been accumulated and is updated regularly based on the geological evidences to study the changes occurred. These evidences include the records of flora and fauna, glacial and periglacial processes, records of sea levels, borehole temperature profiles and sediment layers among other things.

Here is a closer look at the causes and effects of climate change:

# Causes of Climate Change

The factors that contribute towards climate change are:

#### Solar Radiation

The energy emitted by the Sun that reaches the Earth and is carried further to different parts of the planet by winds and ocean currents is one of the main reasons for climatic change.

#### Human Activities

The new agetechnologyis adding to the emission of carbon on the planet which in turn is having a negative impact on the climate.

Apart from this, the orbital variations, plate tectonics and volcanic eruptions also cause changes in the climate.

# Effects of Climate Change

#### Impact on Forests and Wildlife

A number of species of plants and animals have gone extinct due to the change in the climatic conditions and many others are on the verge of going extinct. With the mass extinction of trees in certain regions, many forests are also diminishing.

# • <u>Impact on Water</u>

Changes in the climatic conditions are also having a negative impact on the water system. It has resulted in the melting of glaciers and erratic rainfall patterns that in turn are leading to environmental imbalance.

It is important to take the climate change issue seriously and control human activities that are contributing towards this change.

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# Climate Change Essay 3 (400 words)

Climate change is basically a modification in the distribution of the pattern of the average weather conditions on the Earth. When this change lasts for a few decades or centuries, it is referred to as climatic change. Several factors contribute towards change in the climatic conditions. Here is a look at these contributory factors and repercussions of climate change:

Factors Responsible for Climate Change

Here is a look at some of the main factors that cause a change in the climatic conditions on the Earth:

#### Solar Radiation

Sun radiates its energy that reaches the Earth and is emitted back in the space. This energy is carried to different parts of the globe by way of winds, ocean currents and other mechanisms, thereby, impacting their climatic conditions.

# • Volcanic Eruption

Volcano eruption is quite common on the Earth and this is another reason for the climatic change here. The effect of volcanic eruption on the Earth lasts for a few years.

#### Human Activities

Life on the Earth itself contributes to the changes in its climate. The process of carbon emission by humans is one of the reasons that lead to changes in the climate. Emission of carbon due to fossil fuel combustion, burning of industrial wastes and vehicular pollution add to it.

#### Orbital Variations

Variation in the Earth's orbit causes a change in the seasonal distribution of sunlight received on it. This variation results in Milankovitch cycles that impact the climate adversely.

Climate Change Effects

Here is a look at the repercussions of climate change:

#### Effect on Forests

Forests serve as home for numerous species of animals and plants and maintain the ecological balance on the Earth. However, changes in the climate have led to extinction of forests in many regions.

#### Effect on Water

The water system on the Earth has been disturbed due to climate change.

The rainfall pattern has become erratic thereby causing extreme conditions such as drought and flood. It has also caused melting of glaciers.

#### Effect on Wildlife

Climatic changes have become a threat for the survival of various wild species. A number of species of wild animals and plants have gone down and many are on the verge of extinction.

#### Conclusion

Climate change is a global problem. Besides the natural forces, human activities have also contributed majorly to this change. While the natural forces cannot be controlled, human beings must ensure they control the activities that lead to negative impact on the weather in order to maintain harmony on the Earth.

# Climate Change Essay 4 (500 words)

Climate change refers to a change in the global climate pattern. Our planet has witnessed changes in the climatic pattern over the centuries. However, the changes that have occurred from the mid to the late 20 <sup>th</sup> century are more apparent. The level of carbon dioxide has increased exceedingly in the atmosphere and this has led to major change in the climate on the Earth. Besides, there are several natural forces such as solar radiation, variation in the orbit and volcanic eruptions that have been influencing the climatic conditions of the Earth since centuries. Here is a look at the main causes of the changes in the climatic conditions and ways to curb its negative impact.

# Climate Change Causes

There are a number of factors that have contributed towards weather change in the past and continue to do so. These include the variations in solar energy received on the Earth, eruption of volcanoes, orbital changes and plate tectonics. Besides, a number of human activities have also led to the changes in the climatic conditions, particularly over the past few decades. The change that has taken place in the recent past is also referred

to as outcome ofglobal warming. Let us learn about each of these factors in detail:

#### 1. Solar Radiation

The rate at which Sun's energy is received and the rate at which it is dispersed in the space decides the equilibrium temperature and climate of our planet. The winds, ocean currents and other mechanisms carry this energy around the globe thereby impacting the climatic conditions of different regions. Long-term as well as short-term changes in solar intensity have an impact on the global climate.

#### 1. Volcanic Eruption

The volcanic eruptions that are known to impact the Earth's climate are the ones that erupt more than 100, 000 tons of SO2 in the stratosphere. Such eruptions occur a number of times in a century and have a cooling effect on the Earth's atmosphere for the next few years as it partly blocks the transmission of solar radiation to the Earth's surface.

#### 1. Orbital Variations

Even slight changes in the Earth's orbit cause modifications in the seasonal distribution of sunlight received on its surface. There are three types of orbital changes – changes in the Earth's eccentricity, precession of The Earth's axis and modification in the tilt angle of the Earth's axis of rotation. Together these three lead to Milankovitch cycles that have a huge effect on the climate.

#### 1. Plate Tectonics

The motion of tectonic plates reconfigures the land and oceans on the Earth and generates topography over a period of millions of years. This, in turn, leads to a change in the global climatic conditions.

#### Conclusion

The climatic conditions are degrading by the day. While the negative impact on the climate caused by the natural factors discussed above cannot be controlled, the human influences (that have contributed to a major change in the climate lately) on the same can be curbed. Human activities that lead to air, land andwater pollutionand in turn impact the weather negatively must be restricted. Each of us should contribute his bit to control this global issue.

# Climate Change Essay 5 (600 words)

Climate change, as the name suggests, is a change in the climatic conditions on the Earth. There is a frequent variation in the weather however climate change is known to occur only if these variations last from a few decades to centuries. There are a number of factors that lead to a change in the climate. Here is a detailed look at these factors:

Causes of Climate Change

Climate change is caused due to various external and internal mechanisms.

Let us learn about these in detail:

**External Forcing Mechanisms** 

# 1. Volcanic Eruption

Volcanic eruptions that emanate more than 100, 000 tons of SO2 in the stratosphere are known to bring about climatic changes on The Earth. These eruptions cool down the Earth's atmosphere for a couple of years as they bar the transmission of solar radiation to the Earth's surface to some extent.

#### 1. Solar Output

The rate at which the Earth receives energy from the Sun and the rate at which the energy is emitted back in the space determine the climate and equilibrium temperature on the Earth. Changes in the solar output thus impact the global climate.

# 1. Plate Tectonics

The motion of tectonic plates generates topography by reconfiguring the land and oceans over a period of millions of years. This impacts the climatic conditions globally.

#### 1. Orbital Variations

Changes in the Earth's orbit lead to changes in seasonal distribution of sunlight received on it. Orbital changes are of three types. These include changes in the Earth's eccentricity, changes in the tilt angle of the Earth's axis of rotation and precession of the Earth's axis. These cause Milankovitch cycles that have a huge impact on the climate.

#### 1. Human Activities

The increasing emission of CO2 due to fossil fuel combustion, vehicular pollution, deforestation, animal agriculture and land use are some of the human activities that are causing climate change.

# Internal Forcing Mechanisms

#### 1. Life

Life impacts climate by playing a role in carbon emission and water cycles. It also impacts the climatic conditions by way of mechanisms such as cloud formation, weathering and evapotranspiration among others.

#### 1. Ocean-Atmosphere Variability

Together, the atmosphere and ocean bring about changes in the internal climate. These changes can stay from a few years to a few decades and impact the global surface temperature.

Effects of Climate Change

Climate change is having negative repercussions on the Earth'senvironment.

Here is a look at its effects:

#### 1. Effect on Forests

Forests are important to maintain the environmental balance as they soak carbon dioxide. However, several species of trees are unable to withstand the changing climate and have become extinct. Mass extinction of trees and plants has led to decrease in the level of biodiversity which is bad for the environment.

# 1. Effect on Polar Region

The north and south poles of our planet are critical for regulating its climate and these are particularly impacted due to the changing climatic conditions.

If the changes continue like this, it is anticipated that the life in polar region may go extinct in the times to come.

#### 1. Effect on Water

Climate change has led to some serious issues in the water systems across the globe. The rainfall patterns have become extreme due to the changing weather conditions and this causes flood and drought conditions in different parts. The melting of glaciers due to the rise in temperature is another major issue.

#### 1. Effect on Wildlife

The number of various wild animals including tigers, African elephants, Asian rhinos, Adelie penguins and polar bears has gone down and most of these species are on the verge of getting extinct as they cannot cope up with the changing weather.

#### Conclusion

The changes in the climate are having a negative impact on the environment. As per researchers, human activities have contributed majorly to this change during the last few decades. In order to control climate change and maintain a healthy environment on the earth, human influences on the same need to be controlled.