

# Climate

[Literature](#), [Russian Literature](#)



Running head: Global Warming GLOBAL WARMING Goes Here al Affiliation  
Goes Here The assignment is regarding the issue of climate change or global warming that is the main concern in environmental studies. The assignment writes a report on an article that was published in Environment 360 at Yale website. This essay discusses one of the most urgent issues in environment studies - climate change or global warming its definition and various controversies that are raging in this area of studies is discussed by author Michael Mann.

### Introduction

This article was written by Michael Mann, one of the most prominent climates scientists. He wrote and published this article on 12 April 2012 in 'opinion' section. The main theme of this article is to offer detailed information regarding the harassment of the weather scientists by various sections of society, especially the fossil fuel industry. Since the scientific community has identified exploitation of fossil fuel as the main reason for global warming, this section of society has been prosecuting them on various levels, in spite of mounting evidence.

### Defining Climate change

Climate change can be broadly defined as the long-term time period shift in weather statistics including the average climate (NOAA, 2007). One of main concerns in environmental study is global warming with the continuous increase in temperature all over the world. It is also one of the topics that are hotly debated between various sections of the modern society (US National Academy of Sciences & the Royal Society, 2008).

### Global Warming

Mann begins by saying that weather scientists who are working in this area are gathering mounting evidences regarding the increase of surface warming all over the world. One such source is the thermometers that are monitoring the changes in hundreds and thousands of locations all over the world and recording those changes at a permanent location. The scientists are also getting indirect estimates from such sources as the ice cores as well as tree rings; for calculation of change in temperature during past years (US National Academy of Sciences & the Royal Society, 2008).

### Some Theories Regarding Global Warming

Since last few decades, there are many theories that seek to explain the reason of the global warming such as the cycle of sun spots and changes in Earth climate, natural variability of the climate or changes due to human activity.

#### Sun Spots and Sun cycle

Mann states that as per some climatologists, the main source of global warming is the sun spots and the 11 year Sun-cycle. The energy output of the Sun varies considerably depending on the abundance of some isotopes of beryllium or carbon atoms and number of sunspots. But, as per the evidence that is available, there are no long-term changes in output of the Sun's energy in the past century (US National Academy of Sciences & the Royal Society, 2008).

#### Natural Variability

As per the other section, climate change is a continuous part of the Earth's natural variability. This variability is related to continuous interaction between the land, ocean and the atmosphere. It also includes the constantly

changing amount of solar radiation that reaches the Earth (NOAA, 2007).

### Changes Due to Human Activities

With mounting evidence, more and more scientists who are studying global warming effect are asserting that industrial revolution and its effects are the main reasons behind the accelerated global warming. Mann adds that it's a matter of public record that in past 650, 000 years, the level of greenhouse gases is the highest and the main reason behind global warming (NOAA, 2007).

Some gases including carbon dioxide, when trapped in air with water in the atmosphere, create greenhouse effect by trapping heat in the atmosphere. The burning of various fossil fuels such as natural gas, coal and oil adds the levels of CO<sub>2</sub> in the atmosphere (NOAA, 2007).

### Some Implications of Global Warming

As per the scientists who have studied the implications of global warming phenomenon, people all over the world will face lots of issues in future, if this phenomenon is not stopped (Houghton, 2011).

### Rise in Sea Level

As ice melts at increasing rate on the polar ice caps as well as the glaciers, there will be continuous rise in sea level and will cause lot of issues for human communities that live in low-lying areas, believes Mann. These places will be flooded and most of them will become impossible to protect and cause displacement of the population (Houghton, 2011).

### Extreme Events

Extreme events such as unusual high temperatures will become commonplace all over the world and cause further human casualties (Houghton, 2011).

#### Scarcity of Drinkable Water

With continuously high temperature, there will be more evaporation of drinkable water and will lead to water scarcity in many areas (Houghton, 2011).

#### Harassment of the Weather Scientists and Scientific Community

Mann particularly points out the harassment of proponents of global warming. Although there is mounting evidence that points towards the validity of the destructive human activities, there are many sections who are questioning these conclusions. The main skeptics regarding these issues are fossil fuel industry. The scientific community and the weather scientists who are working in this field are facing various types of harassment such as the violation of their privacy by these lobbies (Mann, 2012). Global Warming supporters are accused for their apparent bias against the fossil fuel industry while studying climate change. But evidence gathered by the scientific community all over the world points towards the same conclusion. Mann goes on and names an authoritative agency - the IPCC. One such work produced by Intergovernmental Panel on Climate Change (IPCC) has been comprehensive about global warming validity, and Mann believes this study should rest this debate for good. Since 1988, this panel has produced 4 assessments that covered 1990, 1993, 2001 and 2007 and covered various impacts, scientific theories and analysis of the policy options (US National Academy of Sciences & The Royal Society, 2008).

## Conclusion

All in all, Mann's article clearly demonstrates his strong belief about the validity of global warming. Although, there are many theories in vogue regarding this issue, the most prevalent theory that is supported by strong evidence is environmental change due to human activity, leading to global warming. Despite the continued harassment of the scientific community in various forms, this is one truth that cannot be obliterated by lobbies or groups with vested interests, as Mann supports his claims in the article with numerous evidences.

## Works Cited

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