

# Climate Change; a myth or reality?

## 1. Introduction:

**Thesis statement:** Climate change is a reality of our time existing for millions of years, but the sudden fast change of climate observed by scientists has lead towards alarming situations. However; the individual and collective responsibility can reduce rapid change in climate.

## 2- Claims Made by the Proponents of climate change as a myth:

a) Climate change is a natural phenomenon, not a new concept.

b) Carbon dioxide is a minor greenhouse gas has no major impact on climate change.

c) Available climate models are inaccurate for supporting climate

change as a reality.

3. Evidences that support climate change is a reality:

a) Global temperature rise is a major evidence of changing climate.

b) High rate of melting ice caps and glaciers are example to understand the reality of climate change.

c) High level of acidification in seas and oceans confirms the climate change.

d) Another major testament of climate change is increased frequency of extreme weather events.

e) Increasing shifts in ecosystem and species indicates climate change is a reality.

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f) Long-term climate records shows the occurring of climate change.

g) Scientific consensus shakeout the entity of climate change.

h) The Islamic Declaration on global climate change supporting to the rapid changing climate.

4. Individual, Community and Global Actions that can be taken to reduce the climate change:

a) Reducing energy consumption is blessing for the climate change reduction.

b) Supporting sustainable transportation plays a effective role in limiting the climate change.

c) Global awareness campaigns can save the globe.

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d) Taking the suitable waste reduction and Recycling can limit the climate change.

e) The proper implementation of Paris Agreement can be a major step to limit Global warming.

5- Conclusion:

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## Essay:

On the 5th of December, 1952 unusually fog descended on London in the U.K. It remained in the place for 5 days. Fog was common in Britain weather, but this time it was not a fog but smog. Thousands of people were died within the 5 days due to the respiration. Scientists observed that was due to the toxic air pollution and this is how first time climate change came ahead practically. Climate change is a long term alteration in temperature, precipitation and other climate condition of Earth. Climate change is a reality of our time existing for millions of year, but the sudden fast change of climate observed by the scientists has lead towards alarming situation.

However, the individual and collective responsibility actions can reduce rapid change in climate. There are number of claims made by the proponents of climate change as a myth such

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as climate change is a natural  
natural phenomenon not a new concept,  
carbon dioxide is a minor green  
house gas and the available models  
of climate change are inaccurate which  
support the climate change as a myth.  
However, there are scientific evidences  
to support its reality of existing in  
our time such as global temperature  
rise, high rate of melting ice caps  
and glaciers, high level of acidification  
in seas and oceans and the increased  
frequency of extreme weather events  
are the major examples change.

Additionally, factors include long-term  
climate records, increasing shifts in  
ecosystem and species, scientific consensus  
and the Islamic declaration on global  
climate change are the major evidences  
for the reality of climate change.

still and all there are some individual  
and collective actions that can be  
taken to reduce the climate change  
such as reducing energy consumption,

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Supporting sustainable transportation, taking the suitable waste reduction and recycling, proper implementation of Paris climate change agreement and global awareness campaigns are the suitable steps for the control of climate change.

Climate change is a natural phenomenon not a new concept. The proponents who claim that the Earth's climate always changes over geological time, due to the natural causes.

They point towards historical climate shifts, such as ice ages and warmer interglacial periods, as evidence that climate change is a natural occurring process phenomenon. The reasoning here is that these past climate change events occurred long before human influence, so they believe current climate shifts could similarly be natural. This is how the proponents of climate change as a myth claims it is a myth.

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The second claim by the proponents of climate change is carbon dioxide is a minor greenhouse gas has no major impact on climate change. People who follow the myth of climate change believe that the carbon dioxide can have a quality to trap heat from the Earth's atmosphere. Hence, greenhouse gas effect increases and in result the temperature of globe can increase at certain level of alarming, but the proponents of climate change argue that the availability of carbon dioxide in the atmosphere is minor amount of 0.04% of total gases. Hence, it does not have a ability to become the cause of climate change. It is therefore it is a myth not a reality of our time.

The third claim by the proponents of climate change is a myth. Those environmentalist who believe that the climate change is



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a reality of our time due to they find out the factors and their contribution in climate, through different climate models such as radiative forcing models, carbon cycle model, and extreme weather attribution are the models to observe and measured the climate change.

However, the proponents of climate change as a myth argue that current available models of climate change are inaccurate or unreliable to prove climate change as a reality of this time, because the models involve assumptions and predictions.

It is therefore, models can not predict accurate complex climate systems.

Hence, available models are inaccurate for supporting climate change as a reality of this time.

In the preceding section, claims made by the proponents of climate change as a myth were discussed. Now in the following

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paragraphs evidences that support climate change is a reality will be discussed.

Global temperature rise is a major evidence of changing climate. After the 19th century, the average surface temperature of Earth's surface has risen by  $1.2^{\circ}\text{C}$ . According to NASA and National oceanic and atmospheric Administration (NOAA), the past decades were hottest on the record, with nine of ten warmest years, every coming year is hotter than previous according to University of California report. The rapid rise is strongly correlated with the rise in  $\text{CO}_2$  levels in the atmosphere, largely emitting from burning of fossil fuels, deforestation and industrial activities. It is therefore the global temperature is rising and making major problem for climate.

The second evidence that shows the reality of climate change

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is high rate of melting ice caps and glaciers. Unfortunately, the eroding of cryosphere which plays a crucial roles in Earth's ecosystem and climate of freshwater reservoirs, supporting biodiversity and climate regulation are melting which is critical indicators for changing climate. The Greenland and Antarctic ice sheets have been melting and causing rise in sea level. The rate of shrinking Arctic sea ice is approximately 13% per decade. Glacier National park in the USA which had over 100 glaciers in 1910, now has fewer than 30, with many expected to disappear by 2050 if warming trends continue. Hence, these trends shows high rate of melting ice caps and glaciers which indicate the reality of climate change.

The third evidence which shows the climate change as a reality is high level of acidification in seas

and oceans that confirms the changing climate. oceans absorb about a quarter of CO<sub>2</sub> emitted by the human activities resulting oceanic acidification: a process where sea water acidic. This shift in pH levels threaten marine ecosystem, particularly those dependant on calcium carbonate, like coral reefs and shellfish. coral reefs, which support a quarter of all marine life, are highly sensitive to changes in acidity and temperature. Mass coral bleaching events, where coral expel the algae essential for their survival, have increased in frequency, driven largely by warmer oceans which is threatening to the ecosystem. Hence, it is analyzed that high level of acidification in seas and oceans confirms the changing climate.

Another major testament of climate change is increased frequency of extreme weather events.

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There has been a marked increase in the frequency and severity of extreme weather events, including hurricanes, droughts, extreme monsoons and heatwaves. Studies link these events to climate change. For example, the 2020 Atlantic hurricane season was active for a long time on record, with 30 known storms and wildfires have become more intense in areas like California and Australia, where warmer, drier conditions exacerbate with the spread and intensity of wildfires. It is therefore, increased frequency of extreme weather prolonged indicates towards changing climate.

In addition, other more important entity for climate change is increasing shifts in ecosystem and species, as many species and ecological systems are highly sensitive to temperature, precipitation, and seasonal timing. Scientific studies shows that these shifts year leads

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to the climate change which is occurred due to the human activities. Many species <sup>are</sup> migrating to higher altitudes or moving poleward to escape rising temperatures. Research published that over 1700 species of plants, animals and insects have shifted their ranges of 6.1 km per decade towards the poles, and by 11 meter per decade upward in elevation, as they seek cooler habitats. For example butterflies and birds in North America and Europe have shown significant northward migration which shows climate change is reality.

Furthermore, long-term climate records, derived from a variety of natural and instrumental sources, provide strong evidence that climate change is real phenomenon that much of this change is driven by human activities. The records track shift in temperature, atmospheric

composition, ice cover and sea levels over countries in decades illustrating clear and accelerating trends in climate change. Instrumental temperature ~~has~~ records, dating back to the mid-19th century, shows a clear changing trends in temperature. According to NASA and NOAA, the global surface temperature has risen by about 1.2°C since the late 19th century, with the last decades being the hottest on record. Multiple independent datasets confirms this changing climate which is unprecedented in the historical record and is correlated with the increase in greenhouse gas emission from human activities.

Hence, it is analyzed that long-term climate records shows the phenomenon of climate change.

Moreover, the scientific consensus on climate change is robust and underscore that climate change is

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reality, is largely driven by human activities and poses significant risks to ecosystem and human being.

This consensus has been established through extensive research across numerous scientific disciplines and supported by major organizations globally. A survey conducted by Research shows overwhelming agreement among climate scientists regarding the existence and human influence on climate change. A seminal study by Cook et al. (2013), which viewed nearly 12000 scientific papers, found that over 97% of studies expressing a position agreed that climate change is real and primarily caused by human activities.

Therefore, the scientific consensus shakeout the entity of climate change.

At the last, the Islamic declaration on global climate change supporting to the rapid change in climate. The Islamic declaration



on global climate change issued in August 2015, emphasizes the moral and religious duty of Muslims to address climate change, protect the environment, and advocate for sustainable development. Authored by Muslim scholars, environmental scientists and leaders from the Islamic world, the declaration calls for urgent action on climate change and draws Islamic teachings to frame environmental responsibility. It was issued ahead of the United Nations climate change conference (COP21) in Paris, seeking to inspire global cooperation on climate ~~action~~ on climate action, especially within Muslim-majority nations. The declaration roots environmental stewardship in the Islamic concept of 'Khalifah' or the duty of humans to act as caretakers of the Earth. This is how the recent inclusion shows the rapid changing

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y climate.

In the previous section, evidences were discussed. Now in the subsequent paragraphs: Individual, Community and Global Actions which can be taken to reduce the climate change will be explained.

Reducing energy consumption is blessing for the climate change reduction, as it directly decreases greenhouse gas emissions, promotes sustainability and can lead to cleaner air. Energy production, especially from the fossil fuels, accounts for a larger share of global greenhouse gas emissions. Reducing energy consumption according to the International Energy Agency (IEA), energy-related CO<sub>2</sub> emissions represents nearly 75% of global greenhouse gas emissions. Reducing energy consumption therefore, directly reduces the demand for fossil fuels, lowering emissions and

helping stabilize the climate by encouraging renewable energy such as wind, solar and hydropower to meet energy demands. It is therefore reducing energy consumption is blessing for the climate change reduction.

The second most important factor to reduce the climate change is to supporting sustainable transportation which is an effective way to combat climate change by reducing greenhouse gas emissions, decreasing reliance on fossil fuel and can improving energy efficiency. Transportation is a significant contributor to global CO<sub>2</sub> emissions, responsible for nearly quarter of total emissions can be drastically reduced if total emissions from fossil fuels combustion. By shifting to sustainable options like electric vehicles (EVs), biking and public transportation can be drastically reduced. According to International Agency (IEA), switching to low carbon

transportation and ~~cut~~ emissions by about 60% by 2050, particularly if renewable energy sources are used to power electric vehicles. This is how sustainable transportation plays an effective role in limiting the climate change.

The third significant factor for ~~the~~ controlling climate change is global awareness campaigns which address the climate change and promoting environmental conservation. By educating the public, fostering behavioral change, and driving policy support these campaigns can significantly impact the fight against climate change and environmental degradation. Global campaigns raise awareness by educating people about the impacts of climate change, environment degradation, and sustainable practices. The United Nations "Act Now" campaign, for instance uses digital tools to

educate individuals on reduce their carbon footprints and highlight small sustainable actions that collectively make a big difference. Therefore it is necessary to promote the global awareness for saving the globe.

Furthermore by taking the suitable waste reduction and recycling can limit the climate change. Effective waste reduction and recycling play a significant role in combating climate change by decreasing greenhouse gas emissions, conserving natural resources, and reducing landfills usage. Waste in landfills produces methane, a potent greenhouse gas with a global warming potential 28-36 times greater than CO<sub>2</sub> over a 100-year period. The U.S. Environmental Protection Agency (EPA) estimate that improving recycling and composting can reduce emissions by minimizing landfills waste and the methane it generates. Hence, it is necessary to take suitable

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waste and recycling can limit the changing climate.

At last, the proper implementation of Paris Agreement can be a major step to limit global warming. It establishes a global framework for reducing greenhouse gas emissions, enhancing climate resilience, and promoting sustainable development. The Paris Agreement aims to limit global warming to well below  $2^{\circ}\text{C}$  above pre-industrial levels with efforts to keep it to  $1.5^{\circ}\text{C}$ . According to an intergovernmental panel on climate change (IPCC), meeting these targets is essential to avoid the most severe climate impacts, such as extreme weather, sea-level rise, and loss of biodiversity. It is therefore this is time to implement the Paris Agreement in proper way to limit the climate change.

To conclude, climate change

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is a reality of our time existing for millions of years, but the sudden fast change of climate observed by scientists has lead towards alarming situations. However, the individual and collective responsibility can reduce the rapid change in climate. The claims made by the proponents of climate change as a myth such as climate change as a natural phenomenon, CO<sub>2</sub> is a minor greenhouse gas and available climate models which is inaccurate are the major claims that supporting climate change a myth. At the other hand scientific evidences are available to support climate change a reality of our time such as global temperature rise, high levels of melting ice caps and glaciers, high level of acidification in seas and oceans, increased frequency of extreme weather events, shift in ecosystem and species, long-term climate records, scientific consensus and the Intergovernmental Panel on Climate Change declaration on global climate

change. However, the individual, community and global actions that can be taken to reduce the climate change such as reducing energy consumption, supporting sustainable transportation, global awareness campaigns and proper implementation of paris climate change. As there is always light at the end of tunnel, it is hoped that the world will be take suitable action for the controlling of climate change which is real threat to the world.