# Global Warming And Deteriorating Atmospheric Conditions

Posted on January 8, 2020

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Climate Change or Global Warming is a reality that cannot be ignored at the present time, as it is now underway, demonstrating its symptoms in terms of typhoons, heat waves, floods, hurricanes and in areas that have never experienced them before. The causes, however, of many of the changes are deemed to be anthropogenic and mean that the change in people's attitude towards the problem can bring a change in the environmental conditions. It could be largely attributed to the incessantly rising development and the release of toxic gases and contaminants that are harming the outer layer of the atmosphere, which is, in turn, harming the natural climate and the overall atmosphere of the earth. The failing atmospheric environment is a problem for the entire earth; however, the cities near coastal areas are at high risk from the increasing level of the sea and the effects of hurricanes.

## Sea-Level Rise, Heat, and Threats to Coastal Communities

Global warming includes many atmospheric problems that are befalling the earth all at the same time. The Major problems comprise melting of the glaciers, high temperatures, droughts, adverse conditions for vegetation and planting, etc. The increasing level of water in oceans is also creating a problem for the individuals that are living nearby the oceans or on the islands. Maldives, a nation that is an Archipelago involving numerous small islands, is at risk of sinking, and its entirety will vanish. The erratic change of weather and atmosphere and sudden periodic changes have serious implications for the globe and the socio-economic situation of the individuals that are living there (Root et al.).

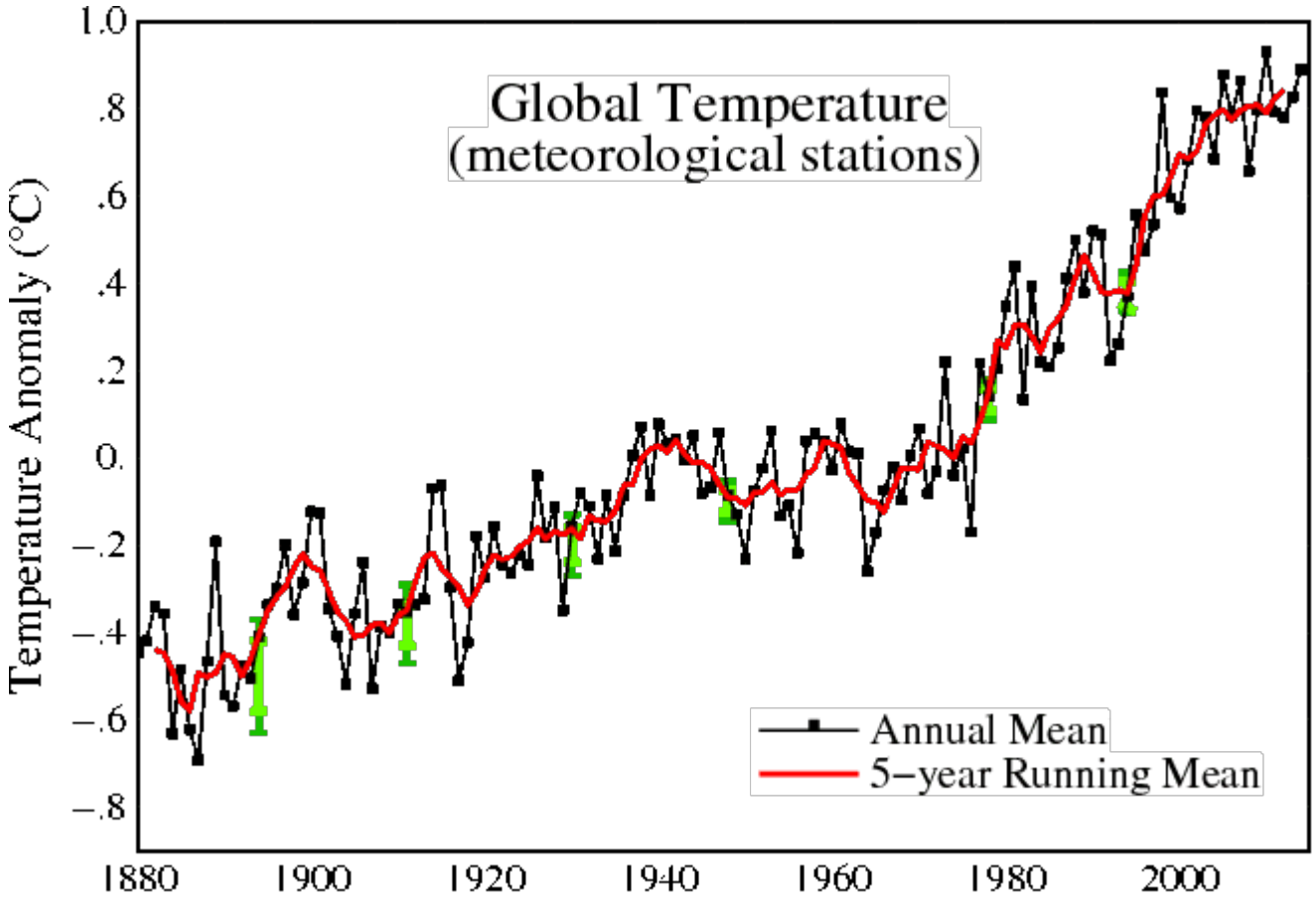


Figure 1 (UK)

The above graph shows the increase in temperature from 1880 to 2000. The average temperature has increased significantly in the last decade.

# Climate Migration and a Future Refugee Crisis

The rising sea levels are predicted to increase their rate multifold and trump all the previous projections. There is a chance that because of the worsening conditions of certain regions, migration will lead to a global refugee crisis that is already in place because of the present political and socio-economic reasons. Several coastal areas and islands are at a greater risk of entirely sinking, which would lead to massive epidemics and migrations that could cause more catastrophes in the increasingly unbalanced worldwide political condition.

# COP21 and the Political Dispute Over Climate Action

Scientists believe that global warming is real and can wipe out the entire population of the planet in a period if the proper steps are not taken. Conference of the Parties (COP) 21 was the only step that

showed the promise and resolve of all the states in solving the problem of global warming. However, because it was deemed a hoax by the president of the US, it lost its importance in some circles. The US is pulling out of the agreement, leading to the renewal of debate on whether or not global warming is a problem at all. So, who is there to help the cities that are in grave danger of being hit first by global warming as they are closer to the seas that are persistently rising? There have been certain plans in different cities that are capable of creating a shield against some of the environment-related devastations that can befall the coastal towns and Islands (Cline).

## Urban Climate Planning and New York's UCCRN

Some coastal cities have been fortunate to have vigilant city governance that sees and acknowledges the problems of climate change. New York is one of those towns that has developed a coalition of city officials and scientists to help with the needed action and projections of how climate change may affect urban areas. They have also started the Urban Climate Change Research Network (UCCRN), a network of scientists to research and provide projections to the city government officials for taking action in their respective cities. This plan will have a global impact as it focuses on making the urban areas safer and a model to be followed by other cities. As cities are smaller than the nations, they are more manageable and can be improved more easily. The focus of city planning against climate change is mostly in the slums, as ordinary people living in more deprived areas are seen to suffer more damage from the water level rise. The planners propose risk assessments before building any new project in the city. The vigilance in this regard can save many resources and help in fighting against the menace of rapid climate change.

## Atmospheric Deterioration as a Global Security Threat

Security concerns have drastically changed because of atmospheric issues, and the enemies in the global political arena are many, but the worst and most familiar to everyone's survival is the constantly deteriorating atmosphere. The rising nontraditional threats are becoming a grave concern for states around the globe. The atmospheric deterioration and global warming are ringing the bells of danger. The rapidly melting glaciers and a drastic change in the weather are raising concerns about the future of the planet Earth. It can be vastly attributed to the continually growing industrialization and the emission of pollutants damaging the outer layer of the atmosphere, which is, in turn, damaging the natural climate. The short-term gains of the atmospheric polluters are damaging the world in the long term. Nonetheless, few of the nation-states have realized the cacophony of the atmosphere and the damage caused to it. Nations that do not see eye to eye on a lot of matters are bound to come together in regard to problems occurring in the atmosphere because it is a common enemy to all.

# The Paris Agreement and Collective Commitments

The Conference of the Parties is held under the United Nations Framework Convention on Climate Change (UNFCCC). COP 21, the 21st Conference of the Parties, has been considered the most successful step in the effort to counter global warming and the problems it causes. The fact that in COP21, 177 parties signed the agreement is a historical event. Around the globe, 174 countries and the European Union signed the agreement on a single day, i.e., 22 April 2015. It is by far the most successful and influential Multilateral Environmental Treaty (MEA). It has the biggest number of signatories, and their resolve to do something big about the atmospheric degradation seemed very real. There have been a lot of bilateral and multilateral treaties before, but due to current signs of rapid climate change that have shown themselves, it has become a huge concern for the parties, i.e., in this case, every nation in the world. The world leaders settled on implementing an “ambitious and balanced” final agreement, including a “legally-binding” contract to keep global warming well below 2°C” (United Nations, 2015). The issue will be solved by limiting the emission of greenhouse gases. It might be hard to do for the developing countries, but it seems to be an effective agreement, and all of the countries agree to comply with it. The United States rejoined the Paris Agreement in 2021, but notified the United Nations of another withdrawal on January 27, 2025. That withdrawal took effect on January 27, 2026, and the United States is currently listed by the UNFCCC as not being a Party to the Agreement.

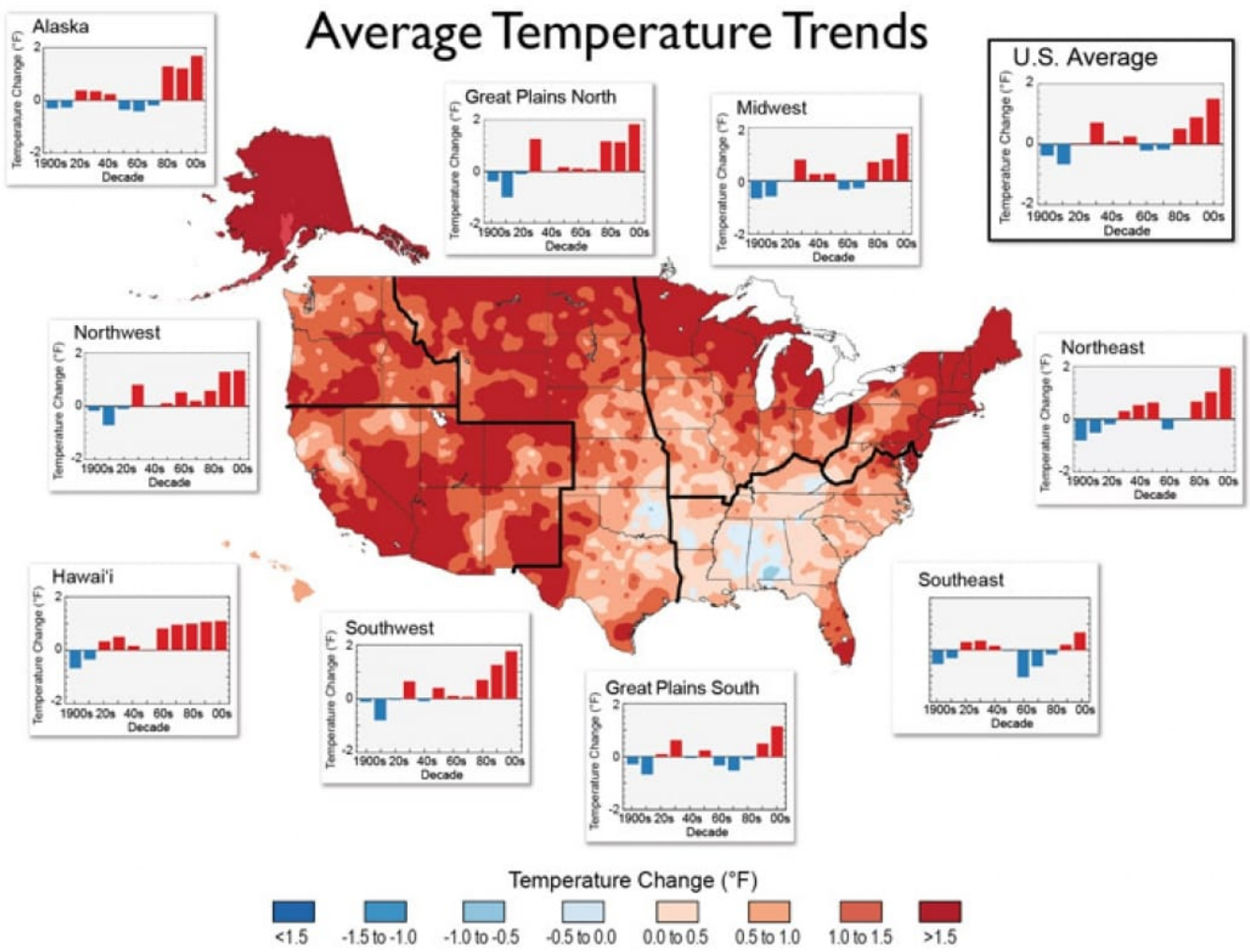


Figure 2 (*Climate Change in the U.S. in 8 Compelling Charts*)

The above maps show the average temperature across different states of the United States. The maps show that there is a significant increase in temperature due to global warming.

# Glacier Loss as Evidence of Warming

Glaciers are melting, and that can be attributed to the warming of the atmosphere. The glaciers around the globe have been used as a steady reservoir of water and have been used for drinking and other domestic and agricultural purposes. The water from these reservoirs is slowly getting limited, and the glaciers are depleting in some cases quite abruptly. These glaciers are a very clear factor that determines the presence of a problem with the atmosphere. Scientists believe that the glaciers are melting fast and are in the process of completely disappearing in some cases. The glaciers that have been employed by people in many parts of the earth for domestic water use are shrinking in size. Melting glaciers are a growing problem and are on a constant upward trajectory. Some atmospheric change skeptics believe there is no truth to it, but scientists have nothing to gain from creating panic

in people over this matter. The glaciers are indeed shrinking, and an example of it can be seen in the case of Glacier National Park, Montana, USA. The number of glaciers at the time the park was built was 150; there are now fewer than 30 glaciers, and the currently present glaciers are way smaller than the original sizes at the time of the creation of the park (Agarwal and Narain).

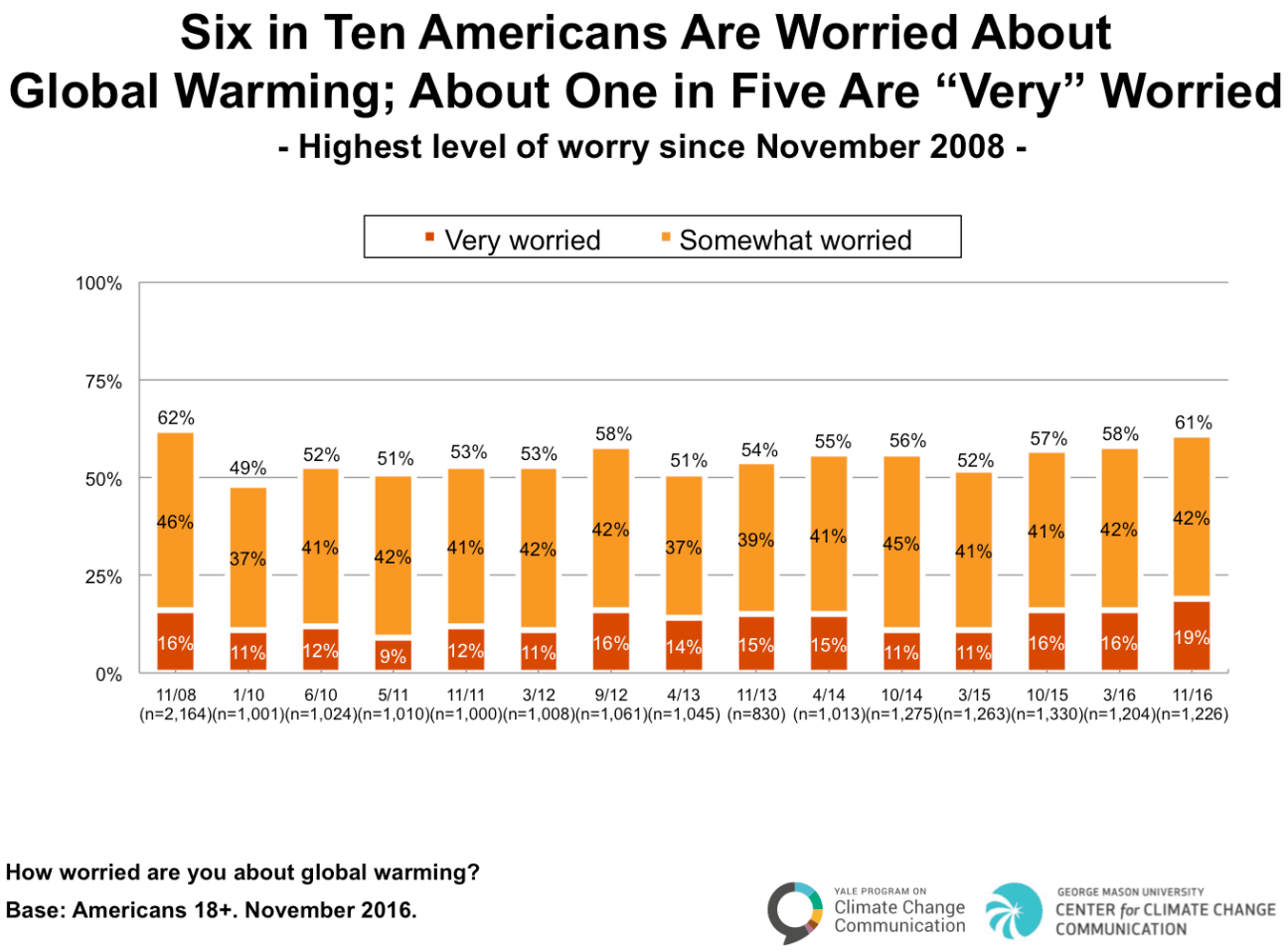


Figure 3 (*Climate Change in the U.S. in 8 Compelling Charts*)

American People are very worried about global warming and its diverse effects on the atmosphere. The above chart shows that one out of five Americans is concerned about global warming.

# Climate Skepticism and Observable Seasonal Change

Some skeptics of the atmospheric change believe that the growing amount of CO2 in the atmosphere does not necessarily mean that the temperature will also rise. They cite certain charts saying that there is a pause in temperature increase, and that means that the temperature is not subject to

change in CO2. They believe that atmospheric change is a constant process and the cycles of the Ice Age and the warming of the Earth are the reasons for the current temperature change and not the pollution. However, they neglect the continually changing seasons and the gaps between them. The unpredictability of the atmosphere and seasons is one of the problems that are truly baffling and bad for the atmosphere and can be easily seen happening in the current global scenario. The changes are very apparent and cannot be denied by people's will.

## China, the United States, and Diverging Climate Policies

The atmospheric situation is constantly on a downward trajectory, worsening, but there are some hopeful elements. Of the two biggest emitters of CO2, the United States of America and China, China was always considered reluctant to cut back on its carbon emissions. However, China has become a leading member of the COP 21 plan and has also started work on cutting back on its CO2 emissions. China is focusing on using renewable energy and stepping away from the use of fuels that have a bad effect on the atmosphere. The projections of lower CO2 emissions are one thing, but China did cut back on its use of coal. China is using a quality of coal that leads to the emission of less CO2. The USA, on the other hand, has taken a U-turn on climate change issues in the era of President Donald Trump. However, the inner functioning of the country has not left the problem aside. The Trump administration has taken a step back and reiterated that the US should not spend money on an issue that, according to Trump, is a lie concocted by China. However, the climate change discourse has not completely subsided, and the outcry against the administration might lead to a rethinking of the matter by the administration.

## The Need for Coordinated Global Action

The deteriorating atmospheric conditions are a problem for the entire globe and have grave implications for it. As the problem is global, it needs a global determination for its resolution. Steps such as COP 21 are a positive indication that the global leaders have come together and will come together against the common enemy, i.e., global warming. The US has stepped back from the issue under the current president, but the clear-cut indications of global atmospheric deterioration cannot be neglected for long. The indications will have to be acknowledged, and steps will have to be taken to ensure the survival of all the species on earth. The fact that almost all of the countries have come together at COP 21 once indicates that joint action can be taken shortly to implement a system that regulates pollutant emissions and, in turn, reduces the causes of atmospheric deterioration.

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