

Climate Changed: What Now?

October 2020

Rising temperatures, increasing sea levels, higher frequency of storm surges and wildfires; these are all paradigms of drastic changes in our atmosphere. From the hills of California to the coastal shores of Fiji, varying corners of the world are experiencing heightened shifts in their environment, attributed to one common factor, that our climate is in fact changing.

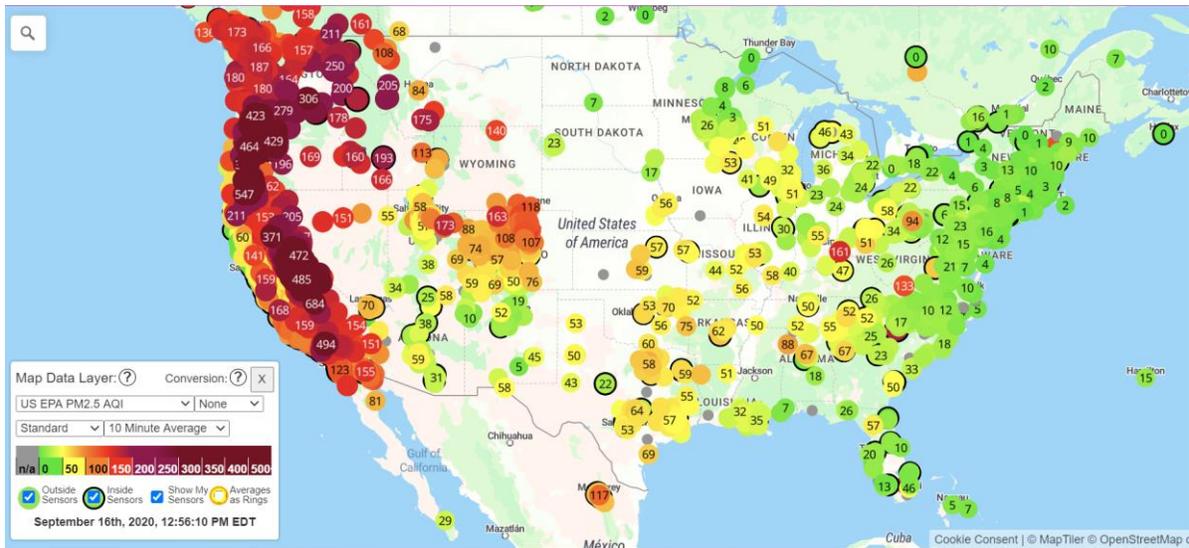
According to NASA, historic spikes in carbon dioxide (CO₂) levels were previously the result of small variations in Earth's orbit, causing a change in the amount of solar energy received by the earth. However, the sharp spike in CO₂ levels since the 1950's, with the onset of the third Industrial Revolution (otherwise known as the Digital Revolution), have far exceeded historic trends and must be recognized for its unprecedented nature.



Comparison of atmospheric CO₂ samples contained in ice cores. Evidence shows that CO₂ levels have increased since the Industrial Revolution. (Nasa, 2020)

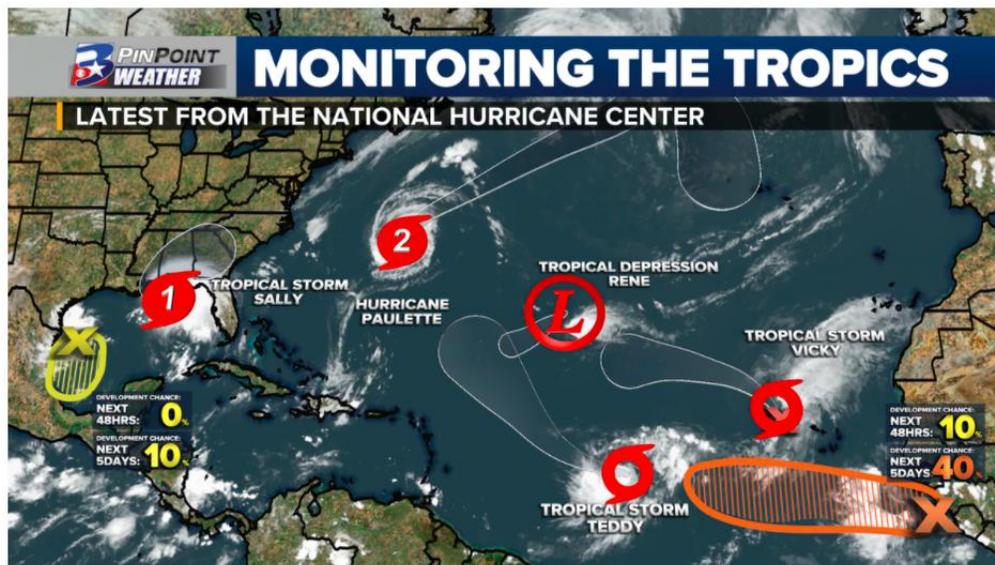
The effects of anthropogenic-induced increases in CO₂ levels have dramatically changed the planet's physical and atmospheric systems. This has resulted in the exacerbated threat of climate hazards, and subsequently, a rise in the number global environmental refugees and climate change-related mortality. According to the UNHCR, the number of internally displaced persons due to disasters in 2017 was 18.8 million with an additional 17.2 million in 2018, spanning across 148 countries and territories.

Most recently, the western coast of the United States is experiencing unprecedented wildfires. The National Oceanic and Atmospheric Association (NOAA) reported this past August as the second warmest above the 20th century average. The fires have not only caused fatalities and destruction, but also impacted air quality for millions of people, causing significant health risks.



Air quality map of the United States, September 2020. The harmful impacts of recent wildfires in the US can clearly be observed through the illustration of current air quality conditions (PurpleAir, 2020).

In addition, the eastern shore of the United States is currently experiencing extreme tropical weather with the onset of multiple hurricanes. By mid September 2020, it was reported that for the first time in fifty years, five tropical cyclones were simultaneously moving through the Atlantic Basin. Hurricane Sally had intensified to a Category 1 hurricane in the North-Central Gulf of Mexico making it the fourth hurricane in the Gulf in 2020 alone. By October of this year, NOAA released that there had been a total of 25 tropical storms, of which eight became hurricanes and three major hurricanes. It is evident that the repercussions of these storms pose a threat to both infrastructure and life. Both the magnitude and frequency of such storms are undoubtedly the direct cause of atmospheric imbalances caused by climate change.



Atlantic Basin Hurricane Map on September 14th, 2020 (KBTX, 2020)

On the other side of the Pacific Ocean, the Fijian islands are experiencing their own struggles in the face of climate change. Rising sea levels and intense storm surges have had a dramatic effect on the country's coastline. Villages have been abandoned due to intense coastal erosion, forcing residents to move inland and to higher ground.

The Asian continent and the Arctic have also not been excluded from the impacts of climate change. This year, Siberia has been affected by severe forest fires covering over 2.3 million hectares. According to Russian officials, a total of 797 forest fires were extinguished by July of this year in 43 regions. These forest fires are inadvertently increasing harmful levels of atmospheric CO₂. Wildfires in the Arctic Circle this summer have emitted 244 megatonnes of carbon dioxide, a 35% increase from 2019.



Siberian Wildfires (Greenpeace, 2020)

The overarching question remains, how do we as a global community move forward in our current situation? How do we lessen the impact, caused by the actions of previous generations, for the future generations to come?

Research published by the Reviews of Geophysics states that our understanding of Earth's "climate sensitivity" at this juncture is paramount as our planet is undergoing a critical state where climate sensitivity is neither so low that it should be ignored, nor is it so high that there is absolutely no hope for recovery. Therefore, it is eminent that the path forward be committed to sustainability and addressing the impacts of climate change through adaptation and mitigation efforts.

Globally we must adapt to our changing climate and provide communities at risk of displacement with support through education and alternatives or protective measures for their current living situations. In addition, industries must actively mobilize towards incorporating more sustainable best practices, minimizing their carbon footprint and harm to the environment.

As a supporter of the Science Based Targets, SkyPower is committed to enabling companies to set net-zero targets in line with a 1.5°C future within the private sector. Our global organization is fully committed to actively addressing the impacts of climate change and reducing our carbon footprint at every stage of our business cycle. This includes office building selection, travel policies, development activities but not least, construction and operational best practices.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SkyPower is an active supporter of the Science Based Targets and works towards advocating for sustainable best practices in the private sector.

SkyPower has developed solar PV plants in India where all functions were proudly conducted with the highest level of environmental and social standards. Our team on the field not only respected the morphology of the terrain by refusing to cut forests for our developments, but also protected local vegetation by creating green areas adjacent to our parks. In addition, we installed Reverse Osmosis (RO) plants to maximize local water supplies by purifying available water sources.

Unbeknownst to some, maintaining utility scale solar PV plants at times requires large volumes of water, which can deplete or overuse local resources. From 2020 onwards, SkyPower's solar parks will be equipped with state-of-the-art robotic waterless cleaning technology that minimizes the need for over-using resources, therefore preserving them for the locals.

It is of the utmost priority for SkyPower to uphold all principles in accordance with international governing standards. We invite you to join us in our commitment towards advocating for the highest degree of sustainable best practices in the private sector, and work towards building a more environmentally equitable future for all.



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