

Climate change includes both the gradual warming of the globe due to human intervention, as well as a large-scale shift in weather patterns. It is caused by human driven emissions of greenhouse gases into the atmosphere, as well as global average temperature change. Greenhouse gases occur naturally and are essential to the survival of millions of living things, including humans. By having a limited supply of greenhouse gases be released into the atmosphere, it allows some of the sun's warmth to remain on the surface of the Earth instead of being reflected back into deep space. But after more than a century of industrialization, deforestation, and large scale agriculture, there have been more greenhouse gases being released into the atmosphere than ever before. This level of greenhouse gases being trapped in the atmosphere has not occurred for more than three million year, where during this time the Earth was 3-4 degrees warmer, there were no polar ice caps, the global sea level had risen about 60 feet compared to today's and it was overall a much warmer climate. For reference, this was during the Pliocene period of the dinosaurs.

A picture of how the East coast looked 3 Million years ago:



The issue with climate change isn't that the Earth would become inhabitable, because I feel humans will always find a way to adapt, There would be widespread mass panic for the major coastal cities. As humans have evolved and grown technologically we have seen that humans are severely attracted to water. And this makes sense, where water is essential to our survival, and can also be used as travel. It is where ports can be established for trade and exploration, where life is hung by a thread, water is typically near. As of 2014, 40% of the human population lived in a coastal city. If the globe continues to warm at the rate at which it does now ( as well as the exponential growth in the greenhouse emission rate/amount ), there WILL be mass panic and mass death at a rate never imagined before. Sure humans will adapt but this will be the biggest tragedy to occur to the human race.

The reasons behind climate change are many, as well as few. As the few that matter the most, where the many do not necessarily change the grand scheme of things. The evidence is there. Warming oceans, melting glaciers, shrinking ice sheets, global temperature rise, decreased snow cover on mountain ranges, sea levels rising, hurricanes occurring more often, ocean acidification, measurements in carbon dioxide being released into the atmosphere. The average concentration of carbon dioxide measured at the Mauna Loa Observatory in Hawaii in 1959 was 316 parts per million, and in 2019 it was 411 parts per million. Also the average rate of carbon dioxide increase is accelerating from in 1980 the average was an increase of 1.6 parts per million being released into the atmosphere, and in the 2010s it rose to 2.2 parts per million.

A lot of climate change comes with the denial of climate change, and the hope that climate change is occurring slower than expected. But that is never the case, where due to human greed and immediate satisfaction policies that need to be put in place are ignored, and other issues are addressed.