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## Reasons Of Climate Changes

Climate change is the change in the global climate patterns which has recently been attributed by the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels. It is mainly referred to as anthropogenic climate change as humans are the main cause of this changing climate. There is a large group of people that vehemently believe that the increase in weather related natural disasters is caused by the world's changing climate. On the other hand, some people believe that we are the main cause of the increase in natural disasters because of have vulnerable and underprepared we are towards them and also the fact that that we are building on land that has a high risk of being destroyed by a natural disaster. It is human's carelessness that is making these disasters worse.

It is argued that climate change is the defining factor in the increased occurrence of natural disasters and most reputable organisations agree with this point. Climate change played a role in 14 of 28 storms, droughts, and other 2014 extreme weather events investigated by global scientists (National Geographic). Recent global industrialisation has resulted in average worldwide temperatures increasing by 0.8 degrees Celsius in the last century (Board of atmospheric sciences and climate). Increasing global temperatures will have a detrimental effect on the Earth as it will have many consequences that will be wide spread and hard-hitting. This is due to the fact climate change will cause increased risk of droughts, in 2014; climate change worsened a drought in East Africa and in the Levant region of southern Syria. There will be increased intensity of storms, especially in mid-latitude areas, such as cyclones and hurricanes with higher wind speeds which will have a more damaging effect on us.

According to NASA, changes in climate will also affect extreme temperatures meaning a greater probability of record hot weather attributing to the increased likelihood of weather-related natural disasters. Also in 2014, climate change made the heat waves in Australia substantially more likely and severe and in South America, human-induced climate change made Argentina's heat wave five times more likely. A warming climate will mean more and more water vapour will evaporate into the atmosphere and it is the key ingredient in storm formation. "If we are creating an atmosphere more loaded with humidity, any storm that does develop has greater potential to develop into an intense storm," says Tselioudis. Warming that has already occurred since 1980 has increased sea surface temperatures 0.3 degrees Celsius, which should increase the maximum potential wind speed of hurricanes by at least 1 knot, (according to hurricane intensity models). Sea surface temperatures in the area where Harvey intensified were 0.5-1C warmer than current-day average temperatures, which means 3-5% more moisture in the atmosphere. There are other environmental changes that could make the storms more deadly.

Melting glaciers and ice caps will cause sea levels to rise more and more dramatically over the coming years, which makes coastal flooding more severe when a storm comes ashore. In their 2001 report, the IPCC stated that sea levels will rise 0.11 to 0.77 meters by 2100. This is causing there to be more moisture in the air so severe downpours across the world are becoming more common. For example, in Houston they have become 167 percent more frequent in the past decade (according to vox.com). It's not just hurricanes and floods climate change are having an impact on, it's exacerbating wildfires too. In California, the exceptionally high temperatures caused years of drought which is left behind a vast amount of dry vegetation.

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But, last year intense rainfall occurred leading to the growth very combustible plants. Then what followed this year was a period of intense heat, which was California's hottest summer ever recorded, reaching temperatures of 106 degrees Fahrenheit in downtown San Francisco. The hotter temperatures caused the atmosphere to warm up, the air expands and can hold more moisture. This pulls more moisture out of plants, creating drier conditions earlier in the season. The extremely hot temperatures and the strong northerly winds led to the devastating wildfires that ripped through the state. Climate change was the main cause of this wildfire as a study found that "climate change due to human activity accounted for roughly 55 percent of the aridity in Western US forests between 1979 and 2015" (Dr John Abatzoglou). This means that without climate change the disaster would have only spread half as much and would have not caused the devastation that happened.

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