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THE GLOBAL WARMING AND ITS EFFECTS ON EARTH

Lino Martín Castro

Facultad de Ciencias Químicas Universidad Autónoma de Chihuahua

Daniel Bernal (deceased)

El Paso Texas Community College United States of America

María Teresa Córdova Losoya

Facultad de Ciencias Químicas Universidad Autónoma de Chihuahua



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Abstract: "Global warming is the term used to describe a gradual increase in the average temperature of the Earth's atmosphere and its oceans, a change that is believed to be permanently changing the Earth's climate." In recent years, we have heard about the heat waves that have occurred in different places of the world. The frequency and intensity of some very costly types of extreme events are likely to worsen with climate change, as temperatures continue to rise and affect weather patterns. Another effect that global warming has is drought. Also in 2012 has been another year of unparalleled extremes and disastrous weather events. There's no need to warn people about the effects of the Global warming, just look around more Heat on earth, Drought and problems with water supply.

Keywords: Global warming, Earth's climate, Weather patterns, Rise of Temperature.

A CHANGE THAT IS BEING OCCURRING ALMOST GRADUALLY

"Global warming is the term used to describe a gradual increase in the average temperature of the Earth's atmosphere and its oceans, a change that is believed to be permanently changing the Earth's climate." Over the past 100 years, Scientists had said that average temperature on earth has risen between 0.4 and 0.8°C. It is said that the volume of carbon dioxide, and other greenhouse gases has increased due by the burning of fossil fuels, land clearing, agriculture, and other human activities, those are believed to be the primary causes of the global warming that have occurred over the past 50 years. Scientists from the Intergovernmental Panel on Climate carrying out global warming research have recently predicted that average global temperatures could increase between 1.4 and 5.8 °C by the year 2100. As we can

see a consequence of the Global warming will have effects on earth like Heat, Drought and problems with water supply.

IT SEEMS THAT IS AFFECTING ALL OVER THE PLANET

In recent years, we have heard about the heat waves that have occurred in different places of the world. To be exact in 2012, recordbreaking extreme events occurred in each of the 50 states of America, in this same year is very likely to be the warmest year overall ever recorded in the US, according to the National Oceanic and Atmospheric Administration (NOAA). The frequency and intensity of some very costly types of extreme events are likely to worsen with climate change, as temperatures continue to rise and affect weather patterns. Extreme weather events inflict tremendous costs on our health and families. One of the most recent event occurred on earth, and that was presented at CNNI on May 23, 2015 was a heat wave scorching India. In 2015, Dr. Gulrez Shah Azhar said, "The one has killed at least 1,000 people," (a community health researcher and policy analyst at Rand Corp. in Santa Monica, California). But, this data could be underestimated by a huge number. Ghosh, a civil engineer at the Indian Institute of Technology Bombay said. "With the increase of global warming, the occurrence of heat waves will increase."

Another effect that global warming has is drought. Also in 2012 has been another year of unparalleled extremes and disastrous weather events, including the worst drought in 50 years across the nation's breadbasket according to NOAA, with over 1,300 US counties across 29 states declared drought disaster areas. It's been said that Global Warming Brought on California's Severe Drought, that on march 02, 2015. This California's severe drought is just a taste of the dry years to come, thanks to global warming findings of a new study. Daniel Swain

said (a study co-author, a doctoral student in climate science at Stanford University in California's warming trend is driving an increase in the risk of drought." In addition, Noah Diffenbaugh said (a lead study author, an associate professor in the School of Earth Sciences at Stanford) "That warming would not have occurred without greenhouse gas emissions." The state is now entering its fourth year of severe drought conditions, according to a University of California, Davis report. The researchers looked at historical temperature and precipitation records to find out whether drought conditions were more likely to hit during warm or cold years in the past. "There was no change in the frequency of dry years during the 120-year record," they reported. "California's drought risk will only increase in the coming decades, with the predicted global temperature spike of 3.6 degrees Fahrenheit (2 degrees Celsius) later this century," the study concluded. California sweated through its hottest year on record in 2014, according to the National Weather Service.

Off course water supply it's a problem for the humanity. Humans use water for everything from drinking and bathing to growing crops, fish farms, shipping goods, and generating electricity, and simply relaxing and having fun, simply we can't live without water. Yet climate change is producing profound changes in this precious commodity, threatening water availability, access, and even quality. To mention the decline in drinking water could be, among others by snow melted by higher

temperatures that reduce the availability of drinking water, by evaporating, the shrinking of mountain glaciers threatens drinking water, sea level rise can lead to intrusion of saltwater into groundwater supplies. Nearly one billion people around the world do not have clean drinking water and 2.6 billion still lack basic sanitation. Therefore, the challenge confronting the world today is daunting and critical as clean water sustains life (and lack of water makes life difficult). And, it would be made worse, with the impacts on water projected under global warming.

CONCLUSIONS AND RECOMMENDATIONS

There's no need to warn people about the effects of the Global warming, just look around more Heat on earth, Drought and problems with water supply. There is a great debate among many people, and sometimes in the news, on whether global warming is real (some call it a hoax). However, climate scientists looking at the data and facts agree the planet is warming. Changes resulting from global warming may include rising sea levels, as well as an increase in occurrence and severity of storms, and other severe weather events like floods and even wild fires. Using clean energy like solar, geothermal, hydroelectric, ocean and winds instead of fossil fuels could be the solution to our ecological problems. Seawater desalination plants installed on the coastlines of the Nations would be extremely helpful.

REFERENCES

Global warming: News, Facts, Causes and Effects. Retrieved from: http://www.livescience.com/topics/global-warming/Consulted 6/6/2015.

Ghose, T. (May 27, 2015). India Heat Wave Death Toll May Be Vastly Underestimated. Retrieved from: http://www.livescience.com/50981-india-heat-stroke-an-undercount.html Consulted 6/6/2015.

Oskin, B. (March 02, 2015), Global Warming Brought on California's Severe Drought. Retrieved from: http://www.livescience.com/50013-california-drought-climate-change.html Consulted 6/17/2015.

Schmidt, J. (March 22, 2010). The Changing Threat to Water: Global Warming and World Water day. Retrieved from: http://switchboard.nrdc.org/blogs/jschmidt/water_and_global_warmingg.html Consulted 6/15/2015.

Union of concerned scientists (2011). Water Use. Retrieved from: http://www.climatehotmap.org/global-warming-effects/water-supply.html Consulted 6/15/2015.