GEOG 101

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Man Made Causes of Climate Change and its Effects on the Global Population

Climate change has caused many issues that affect the global population including more frequent and damaging natural disasters and loss of land due to rising sea levels. The science is clear: climate change is caused by humans. However, despite this fact, climate change has unequally affected the world population and the countries that contribute the most to climate change often see the least of its effects. Meanwhile, people in poorer countries who contribute less due to the fact that they eat less meat and are more likely to use public transportation (or walk) are often the ones who are face the greatest consequences from climate change. In this paper I will demonstrate that climate change is caused by manmade factors and show the effects it has on the global population.

Firstly, I would like to state that the rest of this paper is plagiarized from Wikipedia and all of my sources come from there. Contemporary climate change includes both global warming and its impacts on Earth's weather patterns. There have been previous periods of climate change, but the current changes are distinctly more rapid and not due to natural causes.[2] Instead, they are caused by the emission of greenhouse gases, mostly carbon dioxide (CO2) and methane. Burning fossil fuels for energy use creates most of these emissions. Agriculture, steelmaking, cement production, and forest loss are additional sources.[3] Greenhouse gases are transparent to sunlight, allowing it through to heat the Earth's surface. When the Earth emits that heat as infrared radiation the gases absorb it, trapping the heat near the Earth's surface. As the planet heats up it causes changes like the loss of sunlight-reflecting snow cover, amplifying global warming.[4]

On land, temperatures have risen about twice as fast as the global average. Deserts are expanding, while heat waves and wildfires are becoming more common.[5] Increased warming in the Arctic has contributed to melting permafrost, glacial retreat and sea ice loss.[6] Higher temperatures are also causing more intense storms and other weather extremes.[7] Rapid environmental change in mountains, coral reefs, and the Arctic is forcing many species to relocate or become extinct.[8] Climate change threatens people with food and water scarcity, increased flooding, extreme heat, more disease, and economic loss. Human migration and conflict can be a result.[9] The World Health Organization (WHO) calls climate change the greatest threat to global health in the 21st century.[10] Even if efforts to minimise future warming are successful, some effects will continue for centuries. These include sea level rise, and warmer, more acidic oceans.[11]

Many of these impacts are already felt at the current 1.2 °C (2.2 °F) level of warming. Additional warming will increase these impacts and may trigger tipping points, such as the melting of the Greenland ice sheet.[12] Under the 2015 Paris Agreement, nations collectively agreed to keep warming "well under 2 °C". However, with pledges made under the Agreement, global warming would still reach about 2.7 °C (4.9 °F) by the end of the century.[13] Limiting warming to 1.5 °C will require halving emissions by 2030 and achieving net-zero emissions by 2050.[14]

In May 2021, water levels of Lake Oroville dropped to 38% of capacity.

Some effects of climate change, clockwise from top left: Wildfire intensified by heat and drought, worsening droughts compromising water supplies, and bleaching of coral caused by ocean acidification and heating.

Making deep cuts in emissions will require switching away from burning fossil fuels and towards using electricity generated from low-carbon sources. This includes phasing out coal-fired power plants, vastly increasing use of wind, solar, and other types of renewable energy, switching to electric vehicles,

switching to heat pumps in buildings, and taking measures to conserve energy.[15][16] Carbon can also be removed from the atmosphere, for instance by increasing forest cover.[17] While communities may adapt to climate change through efforts like better coastline protection, they cannot avert the risk of severe, widespread, and permanent impacts.[18]