

GEOG-101

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Climate Change Paper

Climate change is the change in the regular, constant weather of a place, such as how much it rains in a certain place or area over a year, looking at it from a bigger picture climate change also refers to the Earth's climate, such as how much it rainfall or snow the planet gets in a year, or a change in the Earth's regular temperature. So what exactly causes climate change? There are many natural factors that cause climate change, such as CO₂ levels, volcanic eruptions, and changes in the sun such as Earth's distance from the sun, another cause for climate change are humans. In order to complete their everyday activities humans need energy, the three major categories of energy for electricity generation are fossil fuels, nuclear energy and renewable energy sources. According to the U.S Energy Information Administration, in the United States the largest source of energy for electricity generation are fossil fuels (coal, natural gas, and petroleum). These are formed from the decomposition of buried carbon-based organisms that died millions of years ago. Although fossil fuels provide energy for humans to complete their daily activities, they have a negative impact on Earth. When fossil fuels are burned, large amounts of carbon dioxide are released into the air, carbon dioxide is a greenhouse gas this means that releasing more CO₂ traps more heat into the atmosphere causing the Earth to get warmer and warmer. The Earth's average global temperature has already increased by 1°C, and scientists think that the temperature will continue to rise for the next 100 years. As the planet gets warmer, more ice and snow will melt around the

planet, causing the sea levels to rise which will cause land subsidence due to flooding in different regions. As more ice melts, many animals that live in cold habitats will lose their habitats, their sources of food which will lead to their extinction. As the climate continues to warm, there has been an increase in heavy precipitation, this has also been seen in the increase of hurricanes, they are more frequent, stronger and more intense, this will continue to happen due to climate change. There has not only been an increase of rainfall but in the warmer regions such as the Southwest, more droughts and heat waves are projected to become more intense, summer temperatures will continue to rise, an increase in heat waves and droughts also increase the risk of wildfires, causing animals to lose their habitat, and when these fires spread even humans are highly affected when their homes are claimed by these fires and are then left with nothing.

The Netherlands:

The Netherlands is a country located in northwestern Europe, it is a low lying country and flat, meaning that it is near or below sea level, the country has a large amount of lakes, rivers and canals. As the sea levels rise on the planet due to ice and snow melting faster, a low lying country is bound to be greatly affected, especially their physical environment. With an increase in snow and ice melting, and melting at a faster rate due to the planet getting warmer, the country of The Netherlands will be negatively affected, it is a country with many lakes, rivers, and canals, and it is classified as a low lying country, with an increase in sea levels the country could even disappear from the map. An example of this already affecting the country is, Noordwaard, a dutch community that no longer exists (O'Leary, Naomi. 2019) Noordwaard was at first part of

the “Land reclamation,” historic practice that has been part of the Netherlands since medieval times, land reclamation consists of pushing water back and canals were created to keep the land dry, but what was once a thriving farming area, is now just marshlands, in an effort to keep nearby cities dry, Noordwaard was part of the “room for the river” program where land is given back to the water and reverted to nature. This affects people because whole communities have to be moved to a different location, it used to be a farming community and that is now gone, people lost their jobs, their homes and if nothing gets done to combat climate change, the whole country could be affected. What the country is currently doing is adapting, and retreating, giving land back to the water in order to keep other cities dry. Dikes, canals, pumping out water are just temporary solutions, in which at some point the land will be lost. The Dutch government as a way to combat climate change presented a new climate agreement in 2019, the government wants to reduce the Netherlands greenhouse gas emissions by 49% by 2030 and by 95% by 2050 (Ministerie van Economische Zaken, Landbouw en Innovatie. 2020) In the accord the government imposed a carbon tax on major emitters, and big firms will not monopolize solar farms or windmill farms, half of the new renewable energy will be generated on land. Although what they are currently doing is adapting and fighting against time to help the country from being completely affected from climate change, there is only so much that they can do as it’s not just The Netherlands problem but a problem that involves the rest of the world, especially the countries that are the biggest fossil fuels consumers.

Global trade is the exchanging of capital, goods and services across international borders. Global trade can do so many positive things by providing people, and other countries with climate friendly technology, clothes, goods, etc. on the other hand climate change can negatively impact global trade since as weather gets more extreme, more damage is done in the transportation used for these services, causing the cost of trade to go up (World Bank Group. 2021) as globalization, industrialization increase, so does climate change, these terms go hand in hand since it was due to the industrial revolution that pollution increased, and has caused climate change, while goods, services, and capital are more accessible to people around the world and now for a cheaper price, which is very positive, it has come with many consequences and that is hurting the planet. Many companies, corporations are producing goods, processing foods, etc. and they are not being regulated as to how their wastes, or amount of energy or what kind of energy they use affect the planet. For example Agriculture is one of the biggest polluter, this can be shocking to many, but millions gallons of water are used up every year in order to grow livestock for human consumption, grains are used to feed them, etc. as the population grows, agriculture increases, but it is not really necessary since a lot of the these livestock and produce goes to waste, humans do not need to eat as much meat as they do, and by simply cutting down on meat, CO2 levels in the planet would decrease. Agriculture needs to be regulated more carefully, how much they grow, and also their waste. These big agricultural companies create so much toxic waste around the people where they are located that this affects the health of these people, and not only the people but also the environment.

Nations whose emissions contribute the most to climate change do have a moral responsibility to pay for the effects of those emissions, they are the cause for them, therefore they should be the ones to pay for the effects, while it would be hard to decide how exactly they would pay, the first step to “paying” would be to create an agreement, i think these nations owe it to Earth to have an agreement and change their policies to go green, second I believe that the most affected are the people in these nations, they end up living in the poor conditions that are created due to those nations. Similar to a war, I think that these big nations should pay reparations to these poor nations, and help them build schools, promote education, and offer them ways in which they can grow as a country and become more developed, as a way to help them become more sustainable.

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