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## Significance of Global Warming Problems for Humanity

“Multiple studies published in peer-reviewed scientific journals show that 97 percent or more of actively publishing climate scientists agree: Climate-warming trends over the past century are extremely likely due to human activities” (Cook et al.). Since politicians and leaders are ignoring the issue, people are facing horrific problems globally. One effect that has happened because people have ignored the issue is damage to many habitats from forest fires, desertification, and species extinction. Another result is a rising sea level, which is causing food shortages, species migration, economic losses, and an increase in flooding. Lastly, global warming is causing a rapid extinction, which is decreasing biodiversity, increasing carbon dioxide, and pests. Habitat loss, rising sea level, and rapid extinction are significant problems global warming poses for humanity.

Habitat loss is the first of many threats global warming poses for us. One of the main effects of habitat loss is species extinction. “We’ve seen half of the corals on the great barrier reef killed by climate change...” (Barron). Just over the last forty-eight years, the earth has lost three billion birds, and the rate of extinction keeps climbing. The sparrow, warbler, blackbird, and finch are losing massive amounts every single year, with 53 percent of their populations cut since the 1970s. Not only have birds been decreasing in population, but insect species have been in decline as well. In just a few decades, the planet could lose 40 percent of its insect population (Molina). While global warming gets worse and worse, species die-off more and more every single day, so humans as people must act fast to save the earth.

Another effect contributing to habitat loss is desertification. Desertification is when the biological productivity of drylands is compromised and reduced. One of the major causes of this reduction is the rising temperatures from global warming (Rafferty and Pimm). The United Nations Environmental Programme notes, “that desertification has affected 36 million square km of land and is a major international concern” (Rafferty and Pimm). If this problem goes unchecked, 52 million km of drylands will be at risk of desertification. That means the global productivity of foods like manioc, cocoyam’s, sweet potatoes, and rice could be at risk of being decimated. Not only will it destroy habitats, but it will also affect the lives of 250 million people worldwide. If humans come together and control the rising temperature, they can stop the devastation of people’s crops. (Rafferty and Pimm).

The rising temperature affects species, land productivity, and increases the chance of forest fires. In the United States alone, wildfires are burning at an average of 78 days longer and are burning double the area they did in 1970. Research from the Center for Climate Change and Energy Solutions already shows that warmer conditions will cause an increase in area burned per year by 600 percent. Additionally, Fires have many factors that go into them like temperature, soil moisture, and the presence of more giant trees and plants. All these factors are directly affected by the increasing temperature. Also, all these fires cause hundreds of millions in damages (“Wildfires and Climate Change”). For example, “Since 2000, 11 forest fires in the United States have caused at least 1 billion in damages each” (“Global Warming Fueling Fires”). Humans can decrease the effects of wildfires if they start acting against global warming (“Global Warming Fueling Fires”).

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Due to global warming, the sea level is rising at a rapid rate that endangers not only cities but the food supply. Although most of the earth is in danger of sea-level rise, coastal countries are the most at risk of salinity levels in agricultural land ("Food Security Threatened"). For example, "Due to their extensive coastline and many river deltas, countries like Bangladesh and Vietnam are hot spots for climate change impacts such as sea-level rise and saltwater intrusion" ("Food Security Threatened"). In fact, having salinity levels high in areas make it extremely difficult for the plants to absorb water and nutrients because if the soil has a high osmotic potential, it will take more energy from the plant to absorb the nutrients. Already, farmers are reporting an increase in salinity levels in their soil and crops. Humans as a whole have to take a step away from fossil fuels and switch to a better, cleaner alternative ("Food Security Threatened").

Currently, climate change is turning out to have devastating effects on human living conditions, and scientists suspect it will drive mass human migrations. Just last week, a village of 600 people held a special vote deciding whether they should evacuate their homes or not ("Climate Driven Migration"). Not only is it affecting humans, but it is also making over 3,000 species in the northern hemisphere move. Humans and animals will have to move to climates that are cooler and are out of range of the rising sea level (Poon). For instance, "The bottom line is that species will need to move or adapt or die" (McRae). If humans do not start changing their ways, we will live in a crowded world that lacks lots of its original inhabitants, that is if we survive (Poon). Humans are so caught up on saving themselves; they are ignoring all the billions of species that are going extinct every day when one of them could help us exceptionally. If humans survive this ordeal and billions of other species do not, do humans deserve to go extinct too?

Although there are many environmental costs to climate change that people choose to ignore because they believe it will not bother them, but there are also economic costs that could cripple nations. Facing destruction to houses, roads, farms, and repair costs. Not only that, but they will also have rebuilding costs to think about ("Costs of Climate Change"). For instance, "The most expensive thing we can do is nothing" ("Environmental Effects on Economy"). Humans worry about the costs of stopping global warming when it will cost a significantly more substantial amount to do nothing. That also is not counting the value of the animal and human lives lost in the change ("Cost of Climate Change").

Additionally, with a rising sea level, humans will see flooding on a scale that they have never faced before. The economic and physical damages will be catastrophic. With the rapid rise of the sea level from the expanding water and melting glaciers, people will see increasingly deadly storms. Flooding will destroy millions of people's homes and lives because 40% of people live in coastal cities (Mambra). For example, "Studies have suggested that the frequency of disruptive flooding in the regions is expected to increase from 300 percent to 900 percent compared to the frequency recorded 50 years ago" ("Effects of Sea Level Rise"). The flooding will also cause an increase in deaths per year from storms like tsunamis and hurricanes ("Effects of Sea Level Rise").

Similarly, an alarming decrease in biodiversity, which is the variety of plants and animals in an ecosystem, is occurring because of the rapid extinction caused by increased temperatures. The drop-in biodiversity will threaten over a billion people's food security, clean water, energy supplies, and economics ("Decline in Biodiversity"). For instance, "Species populations in the Americas have decreased an average 31 percent since the time of European settlement" ("Decline in Biodiversity"). If humans do nothing to change their ways, they will lose most of

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their biodiversity. This will spell the end to humans and potentially all life on earth (“Declining Biodiversity”).

Consequently, humans are facing a mass extinction from not only a warming temperature but from a breached carbon threshold. Carbon is entering the ocean at an alarming rate that will eventually cause a cascade of chemical feedbacks with damaging consequences. The patterns scientists are getting today match the ones that the earth had on the last 4 out of 5 of the mass extinctions that have occurred on earth (Young). For example, “Once you get over it, you’re dealing with how the earth works, and it goes on its own ride” (Rothman). Humans are rapidly approaching the threshold of no return if they do nothing; it is likely, they will not survive (Young).

Alarming, the earth is having a surge in pests like cockroaches and horseflies while our ant, bee, and the beetle population is plummeting. The decline in helpful insects may have been a result of the changing global temperature, pesticide uses, and damaging agriculture. Since pests thrive in these warmer climates and have a higher breeding rate, the earth is seeing rapidly rising populations of pests and a rapid decline in predators that usually hunt the pests (McGrath). For instance, “It is becoming increasingly obvious our planet’s ecology is breaking, and there is a need for an intense and global effort to halt and reverse these dreadful trends...” (Matt Shardlow). If humans let things continue, they could see a world of crop-eating pests that massacre our agriculture (McGrath).

If humans do not change their ways soon, they will be forced to endure habitat loss, a rising sea level, and a rapid extinction. If humans can reduce the amount of carbon dioxide they produce, they can stop species extinction, desertification, forest fires, food shortages, human-driven migrations, economic loss, and increased flooding. Humans will save their economy from being crippled by the damages of climate change and maybe even go into a better world economically and environmentally. Lastly, reducing the number of pesticides we use in the world will also help the planet’s biodiversity. The main problems humans face today from global warming are habitat loss, a rising sea level, and rapid extinction.

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