## John F. Tinker Essay: Unifying Against Climate Change

"Climate change." "Global warming." "The climate crisis." This terrifying shift in global temperatures is called various names by many different people. However, it affects all in the world, including the flora and fauna. This expresses how it is not an issue exclusively targeting humans, furthering our obligation to stop this crisis. To limit the impact of this issue, all people must unify, ignoring their ethnic, racial, religious, and social differences, as well as any other dissimilarities to unite against this threat. What is climate change? What does this mean for the future of the world as a whole? What can we do to combat this tragedy? Creating change starts with us. We must stop harming the environment and make an effort to restore and protect it instead.

In response to the first question, the term climate change describes an increase in global temperatures and more severe weather events. When this shift becomes too great, it can severely harm natural ecosystems. The past decade has displayed the warmest global temperatures ever recorded according to the United Nations. It may seem that an increase of global temperatures could do nothing to harm the planet, but that is far from the truth. The universal heating of the Earth could cause many natural disasters to be more severe and more frequent, such as droughts, wildfires, rising sea levels and flooding, polar ice caps melting, storms, and as the United Nations states, "decreased biodiversity."

Biodiversity is split into three interrelated categories: ecosystem diversity, species diversity, and genetic diversity. The more connected these three categories are with each other, the stronger the ecosystem and the biodiversity. When different species in an ecosystem "work together" in order to survive more efficiently, it creates more biodiversity. It is extremely important for an area to have large genetic diversity as well. If all of the flora and fauna of a specific environment have too similar gene pools, the entire ecosystem will be threatened by the same disease. However, if the animals are more genetically diverse, the environment would be more stable. With the rise of global temperatures, only certain species will be able to survive, causing reduced biodiversity of

ecosystems worldwide. In some cases, this could cause the complete decline of some ecosystems.

We must all work together in order to stop the climate crisis. In the face of this great adversity humans must disregard their differences for the sake of the world. If we are not united in our efforts to combat climate change and do not address it quickly, the future of the world is grim. According to the Imperial College London, sea levels have risen 19 centimeters since the beginning of the twentieth century, putting many coastal communities at great risk of flooding. If sea levels continue to rise at this alarming rate, many individuals will be forced to leave their homes. We must take into account the impact climate change has on others and realize how important it is to unite against it. In 2018, the European Heatwave was made 30 times more likely by the climate crisis as reported by the Imperial College London. This heatwave led to forest fires in the United Kingdom. Since this event was made significantly more likely by climate change, it implies that this catastrophe could be repeated, causing many more forest fires to happen in the future. These wildfires would also release excessive amounts of carbon dioxide into the atmosphere, furthering the climate crisis.

Carbon dioxide is a gas released primarily from burning fossil fuels such as coal, petroleum, and natural gas. This gas, as well as methane, is a greenhouse gas and acts as a "blanket" around the world, trapping heat inside Earth, not allowing it to escape through the atmosphere. Having normal amounts of carbon dioxide and methane in the atmosphere is crucial for the survival of the natural world since it retains heat by allowing sunlight to enter Earth but not completely escape. However, we are releasing many more greenhouse gases into the atmosphere than would naturally exist, which causes global warming. The predominant emitters of carbon dioxide, according to the United Nations, are "energy, industry, transport, buildings, agriculture and land use." The United Nations also addresses how large landfills of garbage can release a significant amount of methane into the atmosphere, furthering the greenhouse effect.

All of the major contributors to climate change are due to human activities. While this may seem disheartening, this also means that we hold some control and responsibility to change these behaviors. We can find more efficient ways to produce

energy, such as committing to renewable energy sources including wind power, solar power, hydroelectric power, geothermal power, and biomass. Wind power produces electricity through the use of turbines. The blades are designed to harness the wind as efficiently as possible. As the blades revolve, they spin a shaft that leads to a generator. The generator itself contains a conductor, usually a coiled wire surrounded by magnets. The shaft then turns the magnets surrounding the coiled wire to produce electricity. The blades have sensors that cause them to adjust their angle in order to capture the wind as efficiently as possible. The turbines will also shut down if the wind becomes too powerful. Due to wind always coming back, this is a renewable energy resource and a long-lasting alternative to fossil fuels. However, creating wind power requires a very large amount of land to power entire communities as well as an area where the wind blows consistently. This is why the best place for them to be implemented is on the coastline. They also should rise to a high enough altitude in order to capture wind efficiently. Wind power is a clean energy source, meaning that it does not pollute the environment and atmosphere. This provides a lasting energy source that we will never run out of as we would of fossil fuels.

Solar energy is another source of power that even the general population can implement. As long as they can afford the upfront costs, most people can have solar panels installed on their rooftops. The solar panels on the roof of the installer's home capture sunlight and then use that sunlight to heat their homes. While the initial costs of solar panels are very expensive, it will benefit the buyer over time as they save money from their energy bills. Also, some states provide large incentives, such as tax rebates, to coax residents into switching to solar power. In addition, solar energy does not produce any greenhouse gasses, making it a clean alternative to fossil fuels. However, if we wish to create any change at all, we must join together in our efforts against climate change.

It is true that fossil fuels have powered humanity for many years, providing an efficient source of energy that led to the Industrial Revolution. Transportation, electricity, heating, factories, and much more have all been powered by fossil fuels such as coal, petroleum, and natural gas. Fossil fuels have aided the development of human society an astronomical amount but are destroying the environment. Burning fossil

fuels produces carbon dioxide, a gas capable of trapping heat inside Earth's atmosphere. This causes climate change, leading to terrible consequences such as extreme droughts, melting of ancient glaciers, wildfires, disruption of the growth of crops, limited biodiversity, and sea levels rising to occur more often and severely. This will not only impact the future of humanity, it will also exhibit significant influence on all organisms. We must stop this rise in global temperatures by using clean, renewable energy resources such as wind, solar, hydroelectric, biomass, and geothermal energy before it becomes too late. We must limit our usage of fossil fuels in our everyday lives as well. For example, if you are capable, consider walking, running, or biking to places instead of using a form of transportation that produces greenhouse gasses by burning fossil fuels. Another way to limit your carbon footprint is to limit your usage of or reuse plastic bottles. Single use plastics waste petroleum, which is made from oil, and pollute the environment because they do not biograde. Plastic is also incredibly durable, meaning that bottles can be reused countless times instead of being disposed of immediately. Another option is to refuse to buy them in the first place and instead use water bottles made from other materials, such as metal. If we as a whole lessen our consumption of single-use plastics, then humanity's negative impact on the environment will be reduced. We must all do our part to actively confront the climate crisis before it develops even further. The people of the world must put aside their political, ethnic, racial, religious, and social differences, and any other significant contrast in order to stop this crisis which impacts all people of the world.

In order to unite against issues such as climate change, we must first spread awareness to populations worldwide. People must be informed about these topics and should understand how they could be incredibly detrimental to our world. Then, we must promote those voices who are attempting to initiate change and stand with them. Our voices must be heard by those in positions of power, because if they hear and listen, our beliefs and needs will have a greater impact on society. Most importantly, we must be unified. We must all understand each other and our ultimate goal. If we are divided by our differences and harbor prejudices, we will never be able to create significant change that aids all people of the world.

This movement is not only joining together to fight climate change, this is uniting for climate justice. It is immoral and unjust for some to face the consequences of others' actions unequally. The people who suffer most from climate change are those who do not contribute to it as much as others. For example, the inhabitants of a coastal city would be forced to relocate their homes due to rising sea levels, whether or not they significantly contribute to climate change themselves. Stopping the climate crisis would ensure that the actions of people who create large amounts of carbon dioxide emissions do not have consequences that are suffered by those least responsible, creating a more fair and reasonable society.

This issue requires genuine cooperation across society as a whole to create lasting change. Without the ever present threat of climate change, global ecosystems would heal and flourish and humans would have more sustainable methods of living and producing energy. We would be free from the effects of the climate crisis including the risk of increased severity and frequency of natural disasters. The issue of climate change impacts the future of the entire world and all of its inhabitants. If it is not addressed, this crisis could destroy our planet. In order to prevent this environmental disaster, we must be united in our efforts to stop the climate crisis. The need to fight climate change directly addresses our responsibility to restore and protect the Earth as our home.