



Neo Politico

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Climate Change

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Our Philosophy

Everything is political. Everything we do is implicated in, intertwined with, and swimming through spheres of politics. Whether it is the material politics of capitalism, where certain groups of people attain more wealth at the cost of others, or the black radical politics around the U.S., we are all participants in one way or another.

While it is true that everything is political, it is also equally a lie to say politics is everything for people. It is common to find high school students hating politics, either because of a deep resentment of a politician's subject-position or because of a perceived disconnect between politics and the student. It is an undeniable trend that high school students are gradually divesting from politics. Politics is seen as an external structure that denies the student any agency in changing politics.

However, though the downward trend is strong, we can do more to give students opportunities to garner agency. Whether the politics is engaged with the stability of American democracy or the progression of a feminist group, creating spaces for students to express their agency, their energy, their opinions can go a long way towards revealing their relation to the world.

We created Neo Politico to establish that space where any student, regardless of their prior experience, can voice their opinions on certain issues. Every opinion matters because everyone matters. We only hope that more students across the entire world can join us in increasing political engagement and producing a critical consciousness of the world.

The Necessity of Ecological Management to Sustainably Mitigate Climate Change

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Abstract

First, any analysis of climate change warrants a basic discussion of the reality of the situation and a mild refutation of the erroneous notions regarding the existence of unfortunate climate phenomena and their anthropogenic nature. This must come jointly with a description of the basic science behind climate change, namely the greenhouse effect. Second, the proximate cause of said harms necessitates its own evaluation, in order to come to terms with the definitive issues that must be address in regards to a solution to the climate problem. Finally, this analysis of structural harms of climate change meets their proximate causes in a comparative analysis of the plausible sustainable transitions from the unrestricted nature of modern American society towards the climate. This brings the conclusion forth that macro-level management of the environment is the only method of mitigating both the causes and harms of climate change.

The Status Quo

The first inquiry commonly used to stifle any discussion of solutions to climate change is whether it is even real. There is no doubt that this question held a good degree of value when signs of climate change first arose in the early 20 century. This speculation included However, a great deal of time has passed, and with it a great deal of additional analysis and research has come forth to prove the validity of climate change.

The basic science behind climate change is found in an important phenomenon known as the greenhouse effect. The idea behind it is that carbon dioxide and other greenhouse gases form a blanket

around the earth, that keeps some sunlight from entering and some sunlight from leaving the atmosphere. This layer surrounding the planet is not bad for the environment in any intrinsic way, just as a blanket to keep someone warm is not bad at night. The real issue with the greenhouse effect is that more gases, specifically and mostly carbon dioxide, than can be absorbed by the earth are emitted by human use and increase the intensity of the planetary blanket such that too much sunlight is contained within the earth's atmosphere, and thus the globe heats.¹ This theory has sustained its quality and support for decades and shows no signs of failure to predict the nature of climate change.

The greenhouse theory has clear, recent, and indisputable evidence supporting it. The National Oceanic and Atmospheric Administration has collected data on the proportion of carbon dioxide in the cores of glacial structures for decades.² These cores show the changes in carbon dioxide levels in the atmosphere over the course of the past 650,000 years, and the carbon density near the top shows that the amount of carbon in the atmosphere had never passed 300 ppm until 1950, following a century of industrial expansion. This proportion recently crossed 400 ppm in 2014.

The greenhouse effect is not only clearly correlated to human cause, but also its effects are clearly evident. The global sea level has rose 17 centimeters during the last century,³ showing that the increased sunlight held within the atmosphere is melting arctic sea ice.⁴ The snow present on many mountains throughout the northern hemisphere has substantially declined as well, showing a trend over the course of the last five decades.⁵

The much more reasonable and evidence driven argument countering solutions to climate change is the theory that it might not be caused by humans but rather is a result of other uncontrollable phenomena such as increased sunlight or processes not yet known by humans. The problem with the sun hypothesis is that an increase in sunlight would have an equal effect of heating all parts of the earth's surface; rather, the northern hemisphere has experienced significant cooling recently while the southern hemisphere has had record high temperatures.⁶ Additionally, numerous studies show that the intensity of sunlight over the past

250 years has actually declined and been intermittent over the past 250 years, meaning that the earth should be net cooling if the sun was controlling the current climate crisis.⁷

Finally, even if all evidence and all possible arguments surrounding climate change were irrelevant, there is a vast consensus among scientists that the climate crisis is real and anthropogenic, including all U.S. scientific government agencies, 18 American scientific societies, and the Intergovernmental Panel on Climate Change.⁸ The facts are clear, and the argument is over. It's time to discuss solutions.

On Inevitability

The discussion on how to end the harmful consequences of climate change generally falls between two large theories of environmental sustainability: that humans must abandon industrial expansion and return to the roots of society, and that humans must find ways to incorporate a solution to climate change within a larger process of stabilizing the development of the world's natural resources. The issue with industrial regression is that it cannot stop the harms of climate change that are already inevitable due to human activity.

Human emissions have created pools of carbon dioxide in the atmosphere that are unlikely to disappear for 1,000 years. This means that the greenhouse effect cannot be reversed by simply stopping emissions of carbon; rather, it can be stopped from becoming worse. This means that the trapping of sunlight in the earth's atmosphere will continue unabated regardless of future human actions.⁹

In addition to the inevitability of the consequences of the greenhouse effect, the earth itself has fallen prey to another cycle which makes mitigating the effect of climate change difficult. Positive feedback loops occur when global warming causes other parts of the climate to shift which exacerbate the rate of climate change. As polar ice melts, its place gives way to the dark arctic sea and trillions of compounds of methane gas. This not only releases huge quantities of greenhouse gases, it also increases the speed of oceanic temperature rise as the dark sea absorbs much more sunlight than the bright white arctic glaciers.¹⁰

In light of the inevitability of the negative consequences of climate change, it would not be productive to abandon modern society and seek a pre-industrial world. This does not mean that a substantial reduction in carbon emissions would be bad; rather, it must continue in coordination with a much larger challenge to the climate crisis on a macro-political scale.

On Management

Once one understands the situation at hand with climate change, it is clear that the final goal of ending it is not a viable short term strategy. While it may become possible in the future to vastly reduce the levels of greenhouse gases in the atmosphere, it is clear that catastrophic warming events and climate disasters will continue in the coming years. The most important part of the solution to current climate events is making sure that civilization survives and thrives long enough to create a solution to the climate crisis.

The main target of modern climate disasters is the infrastructure that connects and supports modern society. Extreme weather such as storms erodes roads, highways, and bridges by damaging the supports of infrastructure.¹¹ Flooding is already a constant threat to tens of thousands of roads throughout the United States, and threatens to bring them to unusable quality in only a few years. Heat waves damage the functionality of many basic infrastructural elements, such as expanding the components of rail hinges, causing train derailments.¹²

These issues can be mitigated if not entirely resolved through organizational strategies that adapt the structure of society to withstand the impacts of global climate change. One example of this is the elevation of transit systems. Highways, roads, and mass transit systems can all be elevated to avoid most flooding.¹³ Another example is realignment of major traffic areas. Important roads as well as business centers can be relocated to less vulnerable areas away from flood and heat wave zones to avoid personal, property, and public damages. Finally, confrontational strategies such as blockages and walls can be used to

block floods and excessive perspiration.¹⁴

The most important part of these strategies is not the technology or the science behind them, those have been mostly sorted out; the issue is one of planning and management. Government bureaucracy and regulation have commonly become associated with evil, yet there is really no question that every interest group stands to benefit from intervention to protect societal structures from decay due to short term climate events.¹⁵ Anyone can put a stone in the way of a flood, but only the government can build a wall.

Not only is the extent of government action needed, but also its organizational power. There are many different stakeholders and communities who would be affected by an adaptive strategy to climate events, and each would need to be united into a concerted effort to make the process effective.¹⁶ The climate is not confined by political districts or boundaries, and thus only a macro-level government approach can hope to take into account the scope of climate disasters.

Given the inevitability, existence, and magnitude of short-term climate events, only a macro-level, management-driven, adaptive approach can hope to maintain the fabric of society long enough for a final solution to climate change to emerge.

The “Human” and Climate Change

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Introduction

Global climate change represents an uncertain time period in human history. Though climatic changes towards colder temperatures or warmer temperatures have occurred before throughout Earth's history, this climatic epoch is the first event that the human species is exposed to. The effects of climate change, which includes rising sea level changes, shifting global agricultural patterns, increasing number of dangerous storm systems, all hold the potential to destroy the institutions, infrastructure, and everything that makes the human human. The root cause of climate change has not yet been entirely established. Different factors like "air and soil temperatures, water systems, aerosols, currents, clouds, plant respirations, farm-animal flatulence, volcanic eruptions, human influences, solar impacts,"¹⁷ are all factors that play a role in global climate change.

Though the human species has identified the problem, we haven't found a stable solution. In modern environmental politics, the subject-object duality that constructs much of western thought implicates environmental thought. These categories can be analyzed through the lens of ontology, where the subject and object have distinct "beings." The subject is seen as the only actor that can execute an action towards an object. The categories take the form of the human and non-human duality, where the non-human is defined as the "other" that threatens the coherence of the unified "self." In a similar fashion, because climate change and the environment is externalized from human ontology into a general category of "nature", the modern response to climate change has devolved into another technical policy issue to be resolved by an abstract technological innovations. This devolution occurs because modern society constructs the human as the rational, technical manager of the environment. This "modern" or "rational" human response to climate change will fail because the human response interacts with systems that only act

as band-aids to larger structural causalities, like capitalism,¹⁸ that cause climate change.

The “Human”

Before we can answer the anthropogenic epoch impacts what it means to be human, we must first ask what does it mean to be human and how it has changed through time in context of politics. The question of what it means to be human is a question that has an answer in flux. The diversity within the environment and on the planet in general has had incredible impacts on the development of human ontology. Though on a biological level all humans are the 99% same, the 1% difference amongst humans have helped in the construction of hierarchies for certain people and against the majority.¹⁹ Furthermore, lack of larger social interactions between different groups gave rise to the development of individual social and cultural practices. Each group of humans, developing according to what the environment contains, adapted their respective cultures and hence, different cultures accept different ontological statuses. For example, many Native Americans in North America defined the human as another part of a larger universe composed of spirits, animals, plants.²⁰ This checked against the massive extraction of resources that the Western culture of Europe tends to practice. Many western cultures practiced these extractive policies because of the cultural development driven by Judeo-Christian beliefs such as God creating the world for man to reap its benefits.²¹

Time has played a huge role in what it means to be human as well. The politics of temporality is a defining feature in cultures, much like the human relation to the world and environment. Different cultures practice different temporalities. Many cultures, like but not limited to the Mayas in Central America or the Egyptian calendars, constructed calendars independent of the Gregorian calendar to help better manage and predict weather or climatic shifts. This was especially important for these cultures because the respective cultures were primarily agricultural (Egyptians needed to predict the flooding of the Nile in order to construct and maintain irrigation systems for example).

There are multiple definitions of what it means to be human, but the definition of the human that

has shaped modern politics the most is the western definition. In the post-enlightenment era, the human is defined as the white, Christian, heterosexual, and rich man that externalizes the world for his control. This western definition of what it means to be human is the dominant structuring force in modern politics because technologies of violence like capitalism and colonialism have created a permanent epistemic shift in favor of the western culture, at the cost of others. The European subject, the colonizer, has eradicated the epistemology and culture of a multitude of human cultures and, therefore, eradicated the flux of human ontology. The construction of the Western human as the only human and the normalization of linear temporality and the externalization of the natural world is what subsequently led to the labeling of other cultures that deviated from the norms of the west as subhumans or nonhumans.²²

What is “Nature”?

While it is important to ask who is human, it is equally but slightly troubling to ask who (or what) is nature? What constitutes nature? The very conflict between who or what in asking about nature can help reveal a lot about relations and representations in language and, therefore, in a culture at large. If the human is defined as an agent that controls the world, then defining “nature” has its limits. Can human grammar capture the true essence of nature? Can human expression and language, which are both facets of human agency, escape the limits. Derrida was correct to argue that “the concept of subjectivity is irreducibly metaphysical and linked to presence and [self-identification].”²³ In other words, language has its limits and it is doing injustice to define nature in a static definition. Therefore, nature remains irreducible to simplistic interpretations because it functions in methods that cannot be described. Therefore, the only definition that we can possibly attach to nature is what is outside of the human. Furthermore, there is no such thing as a single “nature.” The assumption of “nature” being a single entity is based off of a romanticization of pre-modern cultural practices.²⁴ This romanticization can often be seen in the advertisement industry in capitalist societies like the United States, where products can be “natural” and the color green has become a symbol of what nature is. In truth, nature and the biosphere that we

associate with it is incredibly complex, with interconnecting factors such as weather, climate, topography, etc., all impacting how “nature” functions. While the color green may be accurate in some instance, the ocean, air, soil, desert are all equally a part of nature as well.

The Failed Response

Though there may not be a single root cause to climate change, it can be agreed that a wide range of these causalities originate from human practices. These human practices, including widespread consumption of goods and the uninterrupted dumping of toxic waste into the environment has disrupted the natural systems needed to maintain a biological equilibrium in the biosphere.²⁵ The accumulation of human waste following the industrial era has assisted in the increased temperature fluctuations being recorded around the world. Because modern politics is dominated by the western models, philosophies, and metaphysics, modern politics and the ontology of the modern human is what structures the modern human response to the environment. Following the post-Enlightenment era and following the engraining of Judeo-Christian traditions, the human was seen as an agent that transforms the world. The modern rational human is constructed as the ontologically superior being, where the nonhuman, e.g. nature, becomes a standing reserve, a challenge, to complete and compete against human interests because of its inherent irrationality.²⁶ The human morphs the environment, bending it to conform to a set of rational laws.²⁷

The metaphysics of the human implicates the human response to climate change. Many politicians, economists, and students advocate for new policies and new technologies to manage climate change. It is common to see advertisements for natural gas presenting gas as a cleaner alternative. Many advocate for the use of renewable energy sources like wind turbines, solar panels, geothermal energy convertors, etc. However, these responses will all fail because these green capitalist solutions rely on the production of commodities and the recirculation of commodities. This circulation will only set the stage for the contradictions of capitalism to take hold of the issue.

Let's take for example solar panels. Solar panels may be seen as ingenious for they simply stand facing the sun and supply energy by letting the subatomic particles of the sun conduct work to produce and be converted into energy. However, where do solar panel creators attain supplies? Often, many rare earth metals need to be extracted, which require a corrosive process than can cause irreversible damage not only to the environment but also to local communities situated near these extraction sites.²⁸ Furthermore, what will happen when all the rare earth metal supply run out. Besides just the issue of supplies, green capitalist efforts become tokens for corporations to justify corporate efforts to overlook environmental concerns.²⁹ This tactic was used by BP after the oil spill in the Gulf of Mexico, where the corporation continued drilling for oil after claiming they have fixed the problem. In truth, the extent of the impact of the spill reached to depths beyond human assistance.³⁰ These problems all demonstrate the limits of capitalist solutions to issues of climate change. Capitalist solutions only focus on technical quick-fixes, as band-aids to larger problems.

Another example of the modern response to climate change is the Kyoto Protocol. The summit was a multilateral attempt to address the issue of climate change. Many nations have attempted to create "green" policies that attempt to protect the environment and/or reduce emissions or waste. The Kyoto Protocol, which attempted to create a global standard for emission discharge, was a significant attempt and stands as both a success and a failure. It was a success because it helped unite the states of the world around a problem that threatens the future of humans on Earth but it was also a failure because the principle emitter of the time, the United States, rejected the treaty. Because the US has attained such a dominant presence in the international sphere, not only would no sovereign government condemn the U.S., but the lack of an American signature subsequently led to a decline in the popularity of the treaty. This phenomenon helps to reveal a larger issue within the capacity to solve problems on the level of the government: power and authority. Because the US is a global power, no one would be able to repress or coerce the US into signing an effort towards a more sustainable future. Ideologies bombard and implicate political processes, and the rejection of the Kyoto Protocol is no less of an example that demonstrates as

such. Whoever is constructed as the primary source of power within a given space, has the ultimate authority over action and politics at large. The sovereign is seen as the only legitimate actor that can change the world. Because of the limits of agency within western metaphysical thought, collaborative responses are eradicated.

Hope

Climate change is a problem not for the planet but for humanity at large. Changing conditions throughout the climate will cause widespread shifts in global biodiversity. The principle of natural selection first theorized by Darwin will take hold; animals that are better suited for the new environment will survive and the probability of widespread destruction if not extinction of unadaptive species will increase. Humans are a part of that second category. The existence of homo sapiens only represents a fraction of the total time compared to the length of time life has existed on Earth. But if the normal response that uses technology and innovation to generate change fails, what will work?

The answer to the climate crisis is simple: we are asking the wrong questions. We shouldn't ask what the next big innovation is. We shouldn't ask what policy do we need. We should ask simpler but more fundamental questions that criticize and identify the human practices that have caused a tumult in the climate. Why do we need to consume so much? Why do we need to keep drilling? The answer and truth is simple: we don't. For 99% of the existence of the human species, the prospect of growth and mass consumption never occurred³¹. Furthermore, more sustainable alternatives already exist. For example, many Latin American cultures have embraced Buen Vivir, a new movement focus on establishing "harmony between human beings, and...between human beings and nature"³²." Though capitalism has established humans as the owners of the land, the alternative paradigm of Buen Vivir eliminates the concept of owning the planet. Instead, all actors of the world are stewards of the world. Buen Vivir is an example of alternatives that have arose out of the questioning of the system. The shifting of the question away from manipulating the ontological other (like nature) towards changing ourselves can go a long way

towards creating alternative paradigms to the current unsustainable paradigm and, therefore, can go a long way in generating genuinely sustainable solutions to the climate crisis.

Environmental Injustice: An analysis of low-income communities struggles with the changing climate

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The impacts of climate change are far reaching; they range from melting polar ice caps to ocean acidification to biodiversity loss that have devastating impacts.³³ Humans largely cause these impacts and the fact that climate change is anthropogenic is agreed upon among 97% of scientists and is verified by recent studies.³⁴ Regardless of whether these long-term impacts will destroy the human race, or whether or not climate change is human-induced, it is indisputable that the changing atmosphere adversely affects low-income populations the most.

One of the major anthropogenic factors contributing to climate change is greenhouse gas, and 90% of excess greenhouse gasses are stored inside of the ocean; these gases combined with higher temperatures during the summer caused by other chlorofluorocarbons result in increased hurricanes, droughts, sea waves, floods, and cyclones.³⁵ In the United States alone, 50 million people along the eastern seaboard are vulnerable to these disasters.³⁶ The impacts of the climate change could cause billions of dollars in economic damage to houses, communities, businesses, and poorer populations. Primarily, poorer communities are located and placed in what Giroux calls “zones of terminal exclusion”³⁷ nearer to the coast in urban centers where they are more vulnerable.³⁸ Secondly, poorer communities don’t have effective response mechanisms when disasters occur. For example, during Katrina and Sandy, policymakers “did not plan for people who did not have lots of money, do not own cars, [or] the poor.”³⁹ shown by the fact that they did not have police guidance, government oversight, or proper infrastructure for evacuation as compared to richer communities.⁴⁰ Therefore poorer communities are more adversely affected by natural disasters extenuated by climate change.

A slower type of violence is pollution that also disproportionately affects low-income communities.

Coal plants and highways are placed in low-income communities, so the poorer communities bare the brunt of the environmental damage from the plants and car pollution while the rich communities that decide those policies don't have to suffer from the negative consequences.⁴¹ While the richer communities get to use the highways, the poor without cars are only given access to slow, crowded and inefficient diesel buses that further harm the environment in their area.⁴² This air pollution triggers asthma attacks and many other health hazards that affect low-income people (usually minorities).⁴³ Annually, this air pollution is responsible for killing 70,000 people in the United States through various diseases, cancers, and lung problems.⁴⁴

Environmental damage affecting poor people is not only a domestic problem, but an international one as well. The impacts of domestic environmental destruction are limited compared to the ones faced in developing nations. For example, in Somalia, European countries dump millions of tons of nuclear waste every year.⁴⁵ This has killed the ecosystems, income, and food of Somalis because fishing used to be a primal activity for Somali people living along the coast.⁴⁶ Now the fish are diseased and killed, and the radiated water affects humans too through documented cases of diseases and radiation.⁴⁷ This not only adversely kills the citizens, but also spurs them to become international pirates robbing from ships because they lose their form of sustenance. The environmental damage is the root cause of violence inflicted upon Somalis, and violence they have to inflict to survive. But still, even this is a misconception because most of the time they aren't pirating, just protecting their coast, families and environment from ships that are dumping nuclear waste on their shores.⁴⁸

On a much grander scale, about 800 million people are malnourished⁴⁹ and a "majority ... live in rural areas where agriculture is the predominant form of economic activity, and, therefore, their fate is inextricably inter-woven with that of farming."⁵⁰ This means the controlling factor of crop yield (climate change) is responsible for their sustenance. Although initial changes in climate may help certain crop yields, in the long term, it will decimate crops in all areas.⁵¹ Major institutions that track the effect of climate

change (Agro-PEGASUS, DSSAT, and the IPCC) all conclude that a 2 degrees Celsius increase in temperatures would have devastating effect for poorer countries: -13% for spring wheat and -22% for soybeans and -27% for maize.⁵² A further comprehensive analysis lists that some food prices will increase by 10-60%.⁵³ Not only does decreased crop yield limit the amount of food produced in low-income communities that allows impoverished people to feed themselves, but it also limits the distribution of crops from non-profit organizations to poorer communities because it is more expensive to give them food.

Environmental damage causes poverty, and this claim is also reverse causal: poverty causes environmental damage. Nets given to poorer people in Africa with insecticide treatment intended to protect Africans from insect-transferred diseases are used as fishing nets by the people it is given to.⁵⁴ They recognize the need to protect themselves from diseases, but the more immediate hardship they face is hunger, so they use the nets given to them as fishing nets. These Africans understand the environmental damage; "I know it's not right," Mr. Ndefi said, "but without these nets, we wouldn't eat."⁵⁵ This means the environmental damage that occurs isn't built on their ignorance (like what happens in rich countries), but rather necessary for their survival. These insecticide nets are used by millions of Africans to fish as it is their only form of sustenance, and not only does it damage African fish, overall ocean biodiversity, and coral reefs, but the same environmental damage they produce ends up hurting themselves. The fish they catch these nets in are subject to the insecticide sprayed on the nets, which causes the consumer of these fish to get diseases. They also fish in clear water areas that make them damage water supplies with the insecticides further increasing the likelihood of disease. These poor populations hungry stomach makes them perceive the immediate benefit of diseased food outweigh the long-term benefit of environmental damage. They are put in a place where they must make a decision to damage the environment that they should not have to go through.

This example in Africa is emblematic of how poverty stricken communities will damage the environment for basic needs even though they know it is wrong. Poor communities do not have the

opportunity to extract resources or provide for sustenance sustainably because they don't have the advanced technology or resources to do so, so they go for the cheapest (usually least environmentally-friendly) way to do so. The sad reality is that richer countries don't do so either because they under the drive to extract resources and profit motives, the environment is always a second concern.

These examples pave the way to the conclusion that poverty and environmental damage are intrinsically linked. Not only do advanced developing methods by richer communities damage the environment, but also poorer communities are forced to resort to unsustainable economic development practices just to survive. The solution to these problems through the fight for creating environmentally friendly methods of survival necessitates a combination of environmental movements with social justice movements. Fighting for the usage of sustainable environmentally friendly practices both helps environmental groups reduce environmental damage and help justice groups achieve their goals. Only through inclusive approaches can we create movements and tangible change through collective action by involving people making specific demands with larger coalitional movement.

Causes and Controversies Surrounding Global Climate Change

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Abstract

The perennial notion of human preeminence and idea of anthropocentrism are the fundamental causes of environmental degradation and subsequent climate change. Ever since mankind began developing tools and it has emerged as the hegemon of the seven continents and it has molded the environment to shape its own needs. Initially humans only hunted and gathered and lived largely nomadic lifestyles, but as time progressed they began to settle and form agrarian societies. These agrarian societies burgeoned into towns, cities and later vast empires that spanned the entire globe⁵⁶. Humans began to permanently alter the environment as populations expanded with the use of new farming technologies such as irrigation and over farming. Human impact on the environment has undergone thousands of years of evolution and it continually progresses to become more pernicious and harmful to our environment. Presently, human exploitation of the Earth and continual disregard for the environment has led to a culmination of rapid climate change that threatens the existence of various ecosystems throughout the world. Although climate change is evidently a global problem, the procedure for solving this burgeoning problem is still greatly debated.

Underlying Causes of Climate Change

Rapid global climate change is the direct result of thousands of years of unadulterated exploitation of the Earth and its resources triggered by the idea of human preeminence. Anthropocentrism or the philosophical viewpoint that argues that humans are the central entities in the world has continually been used as justification for the unrestricted destruction of ecosystems and irresponsible consumption of fossil

fuels. The irresponsible mass consumption of fossil fuels⁵⁷ holds its origins in the expansion of the industrial revolution in the mid 18th century. The reliance on fossil fuels continually expanded as the mechanization of different industrial sectors became fueled by carbon based energy reserves such as coal and oil to power machines and later automobiles. This reliance on these sources of power has led to several negative effects on the environment, which ultimately contribute to this problem of global climate change. The production of sulfur and nitrogen oxides from the combustion of organic molecules causes the formation of sulfuric and nitric acid. These acids in the atmosphere then cause acidic rain, which precipitates and alters the pH of affected forests and bodies of water. However, one of the largest problems of the combustion of fossil fuels is the production of carbon dioxide, which traps heat within the Earth's atmosphere and thus leads to higher temperatures. High concentrations of carbon dioxide and other greenhouse gases such as methane, ozone, water vapor, and nitrous oxide create a blanket around the earth that regulates the amount of thermal radiation that enters the earth and the amount that leaves the Earth⁵⁸. The greenhouse effect is a natural process that is beneficial in regulating the earth's surface temperature, but extremely high concentrations of carbon dioxide increase the intensity of the greenhouse effect to such a magnitude that too much heat is kept within the Earth's atmosphere. The amplification of this effect ultimately leads to the phenomena known as global warming, which is characterized by an increase in average temperature over several years. This global warming offsets the climatic equilibrium as some areas continually get warmer, while others experience drops in temperature. Therefore centuries of disregard for the environment and irresponsible consumption of fossil fuels has resulted in indelible problem that has many negative consequences to many fragile ecosystems throughout the world.

Problems of Climate Change

The effects of global climate change are becoming ever more evident as time progresses and they pose a risk to many different species and ecosystems in various regions of the world. The Intergovernmental Panel on Climate Change (IPCC) reported that the average global surface temperature

increased by about 0.6°C throughout the 20th century and that the increase in temperature over this span is the largest increase in the past one thousand years⁵⁹. The IPCC also concluded that the concentration of carbon dioxide in the Earth's atmosphere has increased by 31% since 1750 (pre-industrial revolution time). The level of carbon dioxide in the atmosphere is increasing by an alarming rate of 0.4% each year, due to the large consumption of fossil fuels as well as deforestation⁶⁰. However, the rapid increase in carbon dioxide in the atmosphere is not the only cause of global climate change. The growth of methane (another greenhouse gas) is also unprecedented. Since 1750 methane levels have risen 151%, which is a major problem, because methane is a more potent gas than carbon dioxide⁶¹. However, since carbon dioxide lasts five to two hundred years in the atmosphere as opposed to methane's twelve years, high levels of carbon dioxide are considered to be a greater problem than high levels of methane. In addition, the IPCC predicts that if current levels of fossil fuel consumption continue then levels of carbon dioxide will be ninety to two hundred fifty percent above preindustrial levels. Subsequently the IPCC predicts that the average surface temperature on Earth will rise by 1.4°C to 5.8°C over the course of a century⁶².

Two major potential consequences of this rapid increase in temperature are the potential collapse of the West Antarctic Ice Sheet (WAIS) and the disruption of the Ocean Conveyor System. The collapse of the West Antarctic Ice Sheet would cause the global sea levels to rise by four to six meters⁶³. The shutdown of the deep circulation system (Ocean Conveyor) of vast amounts of heat around the Earth, could have catastrophic effects on the different species of the ocean, because the system plays a fundamental role in regulating Earth's climate⁶⁴. The disruption of the Ocean Conveyor occurred 12,700 years ago and the sea temperatures plummeted by five degrees Celsius, and caused icebergs to disperse as far south as the Portuguese coast. Therefore, the rapid rise in temperatures in some regions would be accompanied by a rapid decrease of temperatures in another region. It is predicted that the North Atlantic region would cool three to five degrees Celsius and in turn produce winters that are twice as cold as the coldest winters on record in the Eastern United States⁶⁵.

If irresponsible and unfettered consumption of fossil fuels continues then the process of global climate change will continue, and possibly have dire implications on future generations. Mass consumption of fossil fuels will not only lead to rising surface temperatures, but it can potentially lead to the collapse of the West Antarctic Ice Sheet and the disruption of the Ocean Conveyor. These two major consequences as well as others will greatly alter the conditions of life on Earth and they can potentially lead to the destruction of different ecosystems and different species of animals.

Controversy Over Solutions to Global Climate Change

Although global climate change poses a large problem for future generations, the process of ameliorating its effects is still greatly debated amongst scientists and politicians alike. Many people in the United States do not understand the severity of the issue due to the lack of certainty in scientific predictions of global climate change's effects⁶⁶. Although the IPCC is 90 to 99% confident in its predictions on the future implications of global climate change, many individuals do not take the problem seriously. Therefore, since the effects of global climate change can not be determined definitively, some Americans believe that the problem can be dealt with in the future instead of in the present⁶⁷. Due to the uncertainty (regardless of how small it is) some people do not seriously consider the implications of global climate change and thus these individuals are unwilling to attempt to rectify the growing problem.

Another reason some individuals do not support initiatives that aim to limit the carbon dioxide emissions is that some believe that the cost of this project is too exorbitant. However, the inevitable reality is that the cost of reducing carbon dioxide emissions is actually far lower than the cost of adapting to increased temperatures⁶⁸. Current economic models estimate that the cost to limit carbon dioxide emissions would cost 2% of the international GNP, which will ultimately become a negligible amount as the international GNP is continually rising each year⁶⁹. Therefore, it is evident that the limitation of carbon dioxide emissions is possible and that the cost of overseeing and conducting this initiative will not debilitate the economy.

Not only is there division between groups in favor of the limitation of carbon dioxide levels and those against these initiative, but even proponents of the reduction of climate change are divided amongst themselves. One of the largest topics of controversy within the advocates for the limitation of carbon dioxide emissions is which countries are the leaders of this initiative and what is each country responsible for. Some people support the policy of equal per capita entitlements in which each country would be given a set amount of carbon dioxide that it can emit each year based on the size of its population. Under this system the United States would produce over 5 tons of carbon dioxide per capita and Japan, Australia, and Western Europe would produce between 1.6 and 4.2 tons. However, heavily populated countries such as India and China produce 0.29 and 0.76 tons of carbon dioxide per capita, which would mean that countries such as the United States would have to significantly decrease carbon dioxide emissions while India and China could increase their emissions⁷⁰. Another concern about this proposal is that it would provide countries with an incentive to increase population growth to in turn allow the country to produce more carbon dioxide⁷¹. Another proposal for regulating carbon dioxide emissions is for wealthy countries to lead the initiative so that less prosperous countries are not as affected by the cost in reducing carbon dioxide emissions⁷². The debate over these two policies as well as other proposed plans in carbon dioxide regulation has hindered the development of a global system of cooperation to solve this problem, but as time progresses more and more nations are beginning to pass legislation to attempt to rectify this growing problem. The phenomena of global climate change is an overarching problem in modern society that has the potential to nefariously impact future generations and thus it is the responsibility of current legislators and populations of the world to take action and end the cycle of human anthropocentrism and disregard for the environment and ultimately save the earth from further destruction.

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Global climate change is a crisis that threatens to changes the conditions that life all over the world is exposed to.

The 1st issue of Neo Politico, time is invested, ideas are drawn, and the world is theorized...all in an attempt in reclaiming the world that is slowly slipping from our grasp, out of our control.



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