<u>Climate Change and Global Warming,</u> <u>Threats and Solution</u>

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"We are the **first generation** to feel the effect of climate change and the **last generation** who can do something about it." – Barack Obama

Climate change is one of the most prevalent and incessant problem the earth faces right now. It might not be something that is apparent or explicit in our day to day lives but it surely is something that has long term and incomprehensible effects. According to a recent article published by the United Nations Human Rights Office of the High Commissioner states that climate change is the greatest threat world has ever faced. An official USA government website stated that the annual global temperatures rose about 1.98F(1.1C) from 1901 to 2020. This might not seem to be a significant rise but this poses as a real threat to a lot of species, habitat, flora and fauna and various natural process on the planet. Some of the worst side effects of climate change include rising sea levels, irregular weather patterns like droughts or flooding, depletion of the ozone layer and much more. The rising of sea levels itself poses a colossal threat to mankind and every other species inhabiting the planet. Rising sea levels are caused due to increased (more than normal) melting of polar ice caps or polar glaciers, this in turn leads to natural disaster such as hurricanes and Tsunamis. This increasing sea level also poses as a threat to small islands as they are engulfed by large water bodies which kills the natural habitat of exotic animals as well as plants on that island. Rising sea water levels also lead to increased ocean and sea temperatures that destroys the natural habitat sea animals such as fishes, sharks and whales as they are not used to such water temperatures. The foremost reason for global warming is the increased usage of greenhouse gasses especially carbon dioxide, methane etc. These gases trap the sun's heat in the Earth's atmosphere and thereby increasing the temperature. Rise in global temperatures due to global warming have also been destroying the Earth's Poles, and the natural habitat it has, thereby also decreasing the Earth's natural fresh water supply essential for the survival of all mankind.

According to a report by World Health Organization (WHO), increase in this temperature may also give rise different diseases because such high temperatures can re-activate dormant disease causing bacteria or viruses that can be fatal to all living organisms on earth. Also, few viruses and bacteria do spread easily in warm temperatures and can grow and evolve quickly. Global warming can cause serous natural disasters such as droughts or famines especially in countries and places that are already dry causing the society along with its flora and fauna to perish. Other

calamities include floods and storms that can prove dangerous and give rise water borne diseases in an area. Floods can disrupt the way of life in an area and can also cause serious damage to livelihood of the people belonging to that region. The Earths winds depend considerably on the temperatures of the earth, uneven rise in this temperatures may cause faster than usual wind speeds and give rise to hurricanes and tornados. Hurricanes and tornados and catastrophic natural disaster and cause cumbersome damage to the area and can have long lasting damages on the animals and people living that area. Last, global warming can turn the Earth's atmosphere into something so lethal that it would simply cease to exist all life forms and turn this utopia into a dystopia.

Although, global warming and climate change seem to be gargantuan and almost unmendable, we still can decrease its ill-effects and by being more precautious and reducing pollution. We can be more cautious by deriving energy from more cleaner sources such as renewable energy that causes almost no pollution while tapping useful energy required for work. Renewable energy such as solar power, wind energy and hydroelectric energy is a safe and less polluting way to derive energy and has significantly less carbon footprint while doing so. Innovations in technologies that do not require fossil fuel and their primary source of energy is the need of the hour and a mandatory requirement. Development in the fields on Battery and fuel cells should be largely promoted and given huge subsides on. As a community there should be large scale awareness programs and government schemes that promote a less carbon footprint lifestyle. Also, with improvement in technology we can recycle and reuse many products that will also decrease the dependence or the need of new materials for any product.

Development and research in nuclear power generation methods and perfecting them could potentially solve the need and dependence of power of the mankind on burning of fossil fuels. Nuclear power generators with current technology are not that safe for operation, but with proper research and design we can build and create safe structures that can produce enough clean energy for our requirement. We can also research more in photovoltaic cells for solar power generation. Better and more efficient cells along with a longer life can make idea of solar farms very feasible and economical. Also development in technologies that detect these hotspots of pollution causing entities and inventing methods and ways could significantly decrease pollution and thus decrease the ill-effects of global warming and climate change.

In conclusion, the Earth is a safe haven for all living organisms, including all in animals and wildlife, protecting and conserving the planet is not only a duty of every human but also a debt we owe to earth to nurture such complex organisms. Global warming is serious problem and needs to be combatted with utmost urgence and precaution.